

AMERICAN AGRICULTURIST,

FOR THE

Farm, Garden, and Household.

"AGRICULTURE IS THE MOST HEALTHFUL, MOST USEFUL, AND MOST NOBLE EMPLOYMENT OF MAN."—WASHINGTON.

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Suggestions and Notes for the Month.

November with its sounding blasts gives warning of the advancing march of Winter, and the prudent man will heed the signal. Everywhere may be noticed the care with which Nature protects her children. The summer glory of the trees has departed, but the fallen leaves spread thickly about the roots, prepare them to withstand the benumbing frosts; and many a bulb and tender sprig and waiting seed, lie snugly nestled within the folds of the kindly shelter. No woven blanket could better protect the pastures and meadows, than does the downy mat formed of the withered blades of grass. Here, too, are safely kept the myriad seeds of flowers that will gladden the fields when Spring shall waken them to life. Nor are the countless tribes of animated creatures forgotten. Warned by unerring instinct, the bee has filled its cells with abundant stores, and fears neither cold nor famine; flies and their congeners have sought sheltering crevices; many insects have burrowed in the earth, and for others, a special form of life has been devised, and their chrysalides hang from fence and bush; the squirrels are gathering nuts and acorns with which to regale themselves in the intervals of their long winter nap; in the wilder regions the bear is looking out his hollow tree, and each animal is rejoicing in the thickened coat which shall shield him from coming storms. Let the husbandman note these kindly provisions, and be equally provident for the creatures entrusted to his care. There may be danger that some domestic animals will be injured by excess of kindness. They should be protected, but not pampered. A horse confined in a close shelter, kept warmly blanketed, fed with unsparing hand, and but little exercised, will be liable to inflammatory diseases from

every slight exposure. Sheep huddled together in warm pens, kept inactive and supplied with abundant food, will be enfeebled themselves, and in the case of breeding ewes, their progeny will also suffer. As with human beings, the first requisite for withstanding severity of weather is robust health and vigor of constitution. With these and plenty of food, animals entirely unsheltered will successfully resist almost any inclemency of the season. But it is both humane and economical to give that amount of shelter which will not interfere with hardiness. A creature exposed to the full force of a winter nor'wester, will shiver off a surprising amount of fodder, and usually of fat also. The importance of this leads us to repeat what we have often said in the *American Agriculturist*, that a large part of the food consumed is used up in the system, actually burned, to furnish animal heat. The need of this repetition is seen in the absence of shelter for stock on hundreds of farms, particularly at the West. We believe it would not be saying too much to assert that the hay and grain annually wasted—burned up for want of protection to animals—would keep twenty-five per cent. more cattle and sheep than are now raised in this country. If any whose animals are unsheltered, are yet doubtful on this point, let them commence experimenting. Build stables or rough sheds for part of the stock, and keep an exact account of the feed consumed by them, in comparison with an equal number allowed to run at large: we have no doubt as to the result. In addition to considerations of profit, there is no little satisfaction in the merciful treatment of dependent creatures. The lowing of unsheltered cows and bleating of neglected sheep are anything but soothing music, while the grateful pleasure which even dumb animals can express in return for proper care, will add not a little to the enjoyments and the attractions of farm life.

Work for the Farm, Household, etc.

Animals.—Keep them always improving. Comfort for the animal is money in the purse of the proprietor. Take them up early for the animals' sake, for the pastures' sake, and for their manure. Provide warm sunny sheds for young cattle, close sheds or boxes for colts, open but warm sheds for sheep, where they can have the range of a dry yard.

Barns and Stables.—A clapboard loose or gone, or a great crack under the door, lets in the cold, and the horse or cow must have more fuel for the fire within the body to counteract the cold from without. Pure air is essential, but let it not come in chilling currents upon man or beast. With ventilators above for the escape of bad air, there will generally be enough good air stealing in almost insensibly through the seams and crevices; if not, admit it from some point where it will not blow di-

rectly upon the animals. Every stable should have one glazed window, and better several.

Butter may be made almost as well at this season as in June, if the feed of the cows is good enough. Sugar-beets and carrots, with plenty of sweet hay and corn-stalks cut up and flavored with bran, corn meal, or cotton seed or other oil-cake with salt as a condiment, will secure the cream which will make yellow butter without annatto, and plenty of it.

Cellars.—The fetid air from decaying vegetables is as bad as the malaria from a swamp; hence be very careful in storing vegetables and in frequently examining those already in the cellar, to remove all roots and leaves beginning to decay. Thorough draining, ventilation, and plenty of lime whitewash, are good, both for the things kept in the cellar, and for those living above it. A little hydraulic lime mortar, with bits of stone and broken glass, are good stoppers for rat-holes. The best cellar temperature is one as low and equable as possible above freezing. In fact a little frost is better for apples than too much warmth. Potatoes endure rather more warmth than apples and other fruits; these must be kept cool, but sweet potatoes will bear quite a high temperature, and should be put in the dryest and warmest part of the cellar. Sashes with double glass and an intervening thin space of confined air, are nearly equal to stone walls, in shutting out cold. Protect the exposed walls with a bank of earth outside, or what is neater and better, spent tan-bark, if it be conveniently accessible.

Cisterns.—Pure clean rain water is better for man and beast than well or spring water medicated with lime and other salines dissolved out from the soil. If not already done, empty and clean foul cisterns early, when rains may be depended upon to fill them again. (See note on examining cisterns and wells, elsewhere.)

Corn.—Dampness and frost combined, injure it for food, and especially for seed. Much of the corn brought to this market is sold as "unsound." The sooner it can be husked and placed in dry cribs, the better. The crib should never be more than 3 or 4 feet wide, and let abundant openings be left, by slats at the sides. The eaves should project far over the sides of the corn-house, to prevent storms beating in upon the sides. A rat-terrier dog chained under or in the corn-house, is the best rat-trap.

Corn Husks.—There is a ready sale for this article at about \$10 per ton at the farm in many sections. It is not worth this for fodder, and the difference, if it be cash, will pay for saving them. Torn into fine shreds on a hatchel, they are better than straw to fill beds.

Drainage.—There is hardly a farm in America on which some work at surface or under-drains may not be done to advantage this month. So long as the ground is unfrozen, this important

work may be pushed forward. Surface drains should be arranged upon a well-matured system, and protected from washing, by securing a distribution of the surplus water upon grass land, or by stoning the bottoms, or securing a gentle flow of water by greater width. Underdraining the garden will advance spring working a week or two, and make the product much better, by letting in warm air and preventing the chill produced by the evaporation of the water from the surface during Summer. The same results are produced in the field. It pays on almost all soils, even those usually considered dry. Clear the obstructions from the dead-furrow drains in the winter grain. Frost will not kill wheat or rye; frozen water in the soil will. Water in freezing expands one-eighth of its bulk, and tears and heaves the roots; perfectly dry soil does not expand in freezing; and soil merely moist expands but little.

Fuel.—It takes the heat of almost one half of green wood to dry the other half. Therefore keep the Winter's fuel dry and under cover. It will save fuel, time, vexation and health, and be a mercy to the housewife.

Grain usually keeps better in the bin than in the mow or stack, especially where mice abound, while in the bin it is ever ready for market. Do not burn the straw, even in the new rich prairie regions. Let the cattle lie on it. If it can not be used, let it lie even five or ten years; there will in that time surely be some place that will be benefitted by an application of well rotted vegetable matter. Clean the grain well for market. A bushel of chaff, foul stuff, or shrunken grain in 100 bushels will lower the price of the whole 3 to 10 cents per bushel—an important difference, and one which will pay well for an extra fanning and screening.

Hedges.—Thorns and other deciduous hedge plants may be set until the ground freezes. Leave evergreens until next May.

Hogs.—They fatten most on the same food when weather is warm. As cold weather comes on, give the hogs warm pens well supplied with dry litter, feed regularly—gradually increasing the amount of food and its richness. Hogs kept in pens will always dung in an out of the way corner, frequently persisting in its being under cover, doubtless for convenience in cold or rainy weather. By watching their habits, and exercising a little *persuasion*, when the pen is first occupied, a great advantage in cleanliness may be secured. For early pigs turn in the males now. Sows run about 4 months (109 to 123 days.)

Horses need clean, well ventilated, and well lighted quarters. They are fastidious in regard to food and drink. The nervous, high-strung nature, which gives the horse his energy, endurance, spirit, and docility, cannot be maintained without constant and judicious care. Young and old horses should be brushed clean or curried daily, blanketed in cold weather, using light woolen blankets in-doors and warm generous ones after exercise and out of doors, especially if exposed, even for a few minutes, to wind, or cold drafts of air. These blankets should cover neck, breast, and flank well. No animal takes so quickly the temper of his master or driver as the horse; so be firm and gentle with him.

Implements on many farms are depreciated more by exposure than by use. Rust is the enemy of iron, and soaking and drying will warp and open, or weaken the firmest wood-work.

Ice Houses.—Ice is becoming year by year more necessary to the comfort, economy, and health of the entire community. During this month prepare ice houses for the reception of the new crop. See that the drainage is good, and that there is no chance for a draft of air, in or out, at the drain. If you have no ice-house, put one up at once if practicable; 10 feet square and 10 feet high, is a good common size. If placed on a side hill, it will save lifting the ice in filling.

Leaves.—It will pay to collect all the leaves accessible, for the manure heap, for the hog pen, and for horse and cow stalls. Here they furnish a good fertilizing material; they are also excellent as a mulch.

Manure.—"Your muck is your maun"—manure is money—is an old English farmer's proverb as true as gospel. In England 'muck' is the generic name for every thing of the nature of animal or vegetable manure, or substances in decomposition. (With us it is generally used to denote the black earth found in swamps or low places, and consisting of decayed roots, and vegetable matter.) To secure all valuable qualities in the droppings and urine of animals, and by allowing them to ferment in connection with inert vegetable substances, to convert the whole into the greatest quantity of available plant food, is the great study of the successful farmer. The "muck" of the swamp, straw, swamp hay, and all other vegetable matters easily decomposed, are desirable to use as bedding and absorbents in the stalls, or to mingle with manure in the compost heap. Save every thing of the kind to add to the manure, and use all means necessary, to prevent disadvantageous heating, fire-fanging, etc.

Plowing.—There are few if any soils which are not better plowed in the Fall than in the Spring, for early culture. So long as the ground continues open, keep the plow running. The sod begins to decay, and is quickly decomposed in the Spring. The frosts kill the weeds, and also affect the inorganic part of the soil, causing it readily to dissolve; and more than all other benefits are the getting ahead with spring work, securing dryness of the soil, and ability to plant much earlier.

Potatoes.—Warmth with moisture is injurious, next to actual freezing. Dryness, and a cool but not freezing atmosphere, in the cellar or earth-covered heap, are essentials. When in out-door heaps, dig a deep trench around them with an outlet, so as to keep the bottom of the heap always dry. Add more earth to the heap only as needed by the increasing cold, always patting down each layer of earth smoothly, to shed rain.

Poultry well cared for, pay by the eggs and manure produced. The secret of having eggs all the Winter is, to give the hens the advantages of Summer, viz.: warmth, shelter, light, water, and some animal food to supply the absence of insects which they gather in Summer, with lime enough to make egg shells. They devour and grind up the weed seeds among the grain tailings fed to them; they eat almost every kind of grain. Bones pounded fine, and scraps of fresh meat they devour greedily and convert them into eggs. We find that a cake of scraps from the fat boiling establishments, placed where the hens can pick at it, always keeps the egg machine in operation; if the supply runs out, the eggs are missing.

Pumpkins.—Avoid bruises in handling; store in a cool dry place, always free from frost; remove seeds when fed; dry as directed last month.

Sheep are fast taking the position in American agriculture, which they should. The high price of both wool and mutton is effecting this. The sheep owner or breeder should be a true lover of sheep and watch them carefully, see personally to their wants, anticipate their needs, know them all individually. Thus he will mark the deficiencies of ewes, in form, in wool production, in fattening ability, in breeding qualities, and so match them that their faults will be corrected in their progeny; or he will from the outset devote certain ewes, or their lambs to the butcher, and by thus weeding out his flock, keep it ever improving. Select such bucks as will correct defects, and sort the ewes accordingly into several flocks. Provide secure protection against storms, but give all breeds some range in open yards. April lambs must be spoken for this month. See p. 334. on fattening.

Roots.—A good root cellar is one of the indispensables of good farming. It is one-sided farming into which an extensive use of roots for stock food does not enter, and much of the farming of the United States is very one-sided. Before storing, roots should be clean and dry. Store them so that the turnips may first be used, the sugar beets, mangels and rutabagas subsequently—carrots being used through the stabling season as a pleasant tonic

and appetizer for horses, and for milch-cows, mixed with other roots, or cut up and fed by themselves.

Turnips.—It is best to let them stay in the ground until the tops are decidedly frosted, but not so long as to endanger the freezing of the root. They keep longer and wilt less, placed in heaps, strawed and covered with earth, than in any but a very good root-cellar. However stored, have them first dry and free from soil.

Weeds.—Gather weeds into windrows and burn them; do not move far, nor so as to scatter the seeds.

Winter Grain.—The advantage gained by feeding off a rank growth in the Autumn, is questionable after the near approach of cold weather. The danger is, that some spots will be too much denuded of the winter mulching which the foliage affords.

Orchard and Nursery.

Last month's remarks regarding work here, apply with equal force this month. In order to have a good orchard, the work must begin with care and conscientiousness on the part of the nurseryman, and be continued with equal care on the part of the purchaser and planter. The best trees from the best nursery may easily be ruined and rendered valueless, by bad treatment from those who buy them, while, on the other hand, no after care will make a good vigorous tree of one which has been maltreated in its early growth. Careful selection of the trees, and an equal care in planting them, are among the main essentials in starting an orchard.

Cider.—Use clean sound fruit, and see that every part of the process is conducted in a neat manner. Much more fruit is frequently stored than can be used or sold, and this excess may often be profitably converted into cider or vinegar.

Cions may be cut at any time after vegetation ceases if they are kept carefully buried until Spring.

Cellars where fruit is stored should be kept open as long as they can be without freezing. When closed for the Winter, provide for ventilation.

Fruit.—Apples which may have fallen or been bruised in picking, should be marketed as unsound fruit or made into cider, or fed to stock, or they may be dried, as noted on page 341. Hand-picked apples should be placed in barrels and kept as cool as possible without being touched by frost. Toward the close of the month, after they have undergone what is termed sweating, sort them thoroughly and head up the barrels, handling with care; one bruise rots the apple, and the disease spreads rapidly to others. Apples packed in dry oats, leaves, bran, or cut straw, and kept cool, will remain fresh and sound long after their usual time of decay. Some kinds of winter pears bear the same treatment, but it is usually better to keep these upon shelves, not touching each other, and covered with paper. The change of color indicating the ripeness of each one may be readily observed; or each pear may be handled.

Insects are now in their dormant state of larva, or their eggs, containing germs of future trouble, are upon the twigs or bark. Cocoons and collections of eggs are now more readily seen as the trees are naked. Destroy them as soon as discovered.

Label everything in the nursery or orchard according to some plan. If labels are used upon the trees, see that they are of a permanent kind, and at the same time not likely to do injury. If, as is preferable, the record is kept by a map, see that every change or new planting is promptly recorded. The value of a fruit is doubled by having the correct name for it.

Manuring should be done in the orchard. Fruit-trees repay good feeding. Use a liberal dressing of old manure or compost.

Mice.—Young trees will need protection where these are troublesome. Wrappings of paper, tarred cloth, sheet-lead, and various other appliances, have been suggested from time to time. We have not tried any of these, but have found the hard tramping of the snow around the trees effectual

Nursery Rows.—Plow between them and turn the furrows toward the trees.

Seedlings of nursery stocks, intended for root-grafting, should be taken up this month and stored in the cellar to be worked during the Winter.

Seeds of apples, pears, etc., and stones of peaches, etc., may be planted as directed last month.

Seed Beds.—Seedlings, especially those of evergreens, need some protection the first year. Sift some dry sandy earth over them, and cover them with leaves or cedar boughs.

Kitchen Garden.

There will be plenty of work in a well managed garden until freezing weather stops all operations. The crops still remaining out are to be harvested, and the ground everywhere to be cleaned up, so that every available portion of refuse shall go either directly to the compost heap, or to the pig sty, or cattle yard. All work of preparation done now, will greatly facilitate labor next Spring. In stiff soil it will pay to throw the ground up in ridges with plow or spade, and leave it thus to the mellowing influences of the frost. The details of operations are the same as those given last month.

Asparagus.—Cover with coarse manure. Make new beds, according to directions given last month. The ground can hardly be made too rich. Manure is the secret of the "Giant Asparagus."

Beets.—The harvesting and storing should be completed before hard frost comes.

Cabbages.—These should be covered for Winter as advised in last month's calendar. Finish putting young plants into cold frames.

Carrots.—Dig and store the remaining crops early in the month.

Celery.—Continue to earth up in dry weather. Harvest before severe weather. Stand it upright on level ground and cover with boards and bank up with earth. Allow no earth to fall between the stalks. Latterly, we have practised putting enough for early winter use into the cellar, covering with earth, and leaving the rest where it grows, well banked over with earth when first struck by killing frost.

Cold Frames.—Prepare for use, and set in them, the cabbage, cauliflower, lettuce plants, etc., requiring winter protection. Cover with glass or shutters during cold nights, but keep open by day as long as the weather will admit. When Winter sets in, cover securely, banking up about the sides, and put straw, leaves, etc., over them to exclude frost. Every mild day, open for a short time.

Drain every wet and heavy spot. The whole garden will be all the better for draining; it can be worked enough earlier in the Spring to make it pay.

Mice.—Let no rubbish be left to harbor them. Guard against their intrusion into the cold frames. Dishes of meal, poisoned with arsenic, will soon dispose of them.

Onions.—Cover with litter to protect those sown late to be left in the ground during the Winter.

Parsnips and Salsify are improved by leaving in the ground until Spring. Dig enough for use during Winter, and cover with earth in the cellar.

Poles, stakes, frames, etc., should all be carefully gathered, and housed for future use.

Rhubarb.—Set roots with crowns, any time before the ground closes. Cover with coarse stable manure, to protect the roots and enrich the soil.

Spinach.—Hoe and thin the plants, and cover with straw or other litter.

Turnips.—Gather before injured by frost, and store for household use, and for feeding to stock.

Fruit Garden.

If the weather continues mild, hardy plants may be put out with advantage. We some time ago gave our reason for preferring to have a separate garden for small fruits, rather than mix up fruit and vegetables in the same ground. Whenever sufficient land is at command, it is altogether better for both to have them separate. Now is a

good season to lay out such a garden, drain and prepare the soil, making all ready for Spring.

Blackberries may be set as directed last month.

Currants and Gooseberries.—Be sure to provide for a good stock of these. Currants particularly, seldom fail. Set out rooted plants, or start cuttings. Ample directions are given in the last and present numbers. Manure old beds.

Dwarf Trees.—Apples and Pears may be set out this Fall. In selecting varieties it is well to heed the advice given by 'Connecticut' on another page. Buy only of parties of known reliability, and be willing to pay a little more for a thrifty well grown tree, rather than take an inferior one because cheap.

Grape Vines.—If you have not already a vine, plant one—or rather several. We have now so many good sorts, that every one can find a grape that will suit even the most unfavorable climate. Planting may be done now. Set out one or two year old well rooted plants in soil deeply spaded and well enriched, and in a locality where water does not stand. Prune this month and lay down the vines. Read article on page 340. Yearling vines, cut back at this season may be protected by having a mound of earth drawn up around them.

Raspberries.—Bend down the canes and cover slightly with earth. New roots may still be set out.

Strawberries.—Give their winter protection to both old and new beds. Straw, spent tan bark, or forest leaves may be used.

Flower Garden and Lawn.

The Chrysanthemums have the garden all to themselves at this time, save here and there a straggling flower that has escaped the first frost; glorious flowers they are to help us prolong the season of bloom into Winter. We look upon the desolation which frost has made in our borders, and sigh for the favorites of Summer, as we remember the tender care with which we cherished them. The memory of the pleasure their beauty gave us should incite us to prepare for their return. We do not wish the readers of the *Agriculturist* to be of that class who have a fever for gardening every Spring, but which subsides, as soon as the novelty and excitement are over. We would have them look upon gardening as a pleasure which is best enjoyed when its labors are distributed throughout the year. To work and plan for future results, is a moral lesson, which can be learned even in the smallest flower garden. During this month, much can be done in preparing for next season's enjoyment. Care for the things we already have, acquiring additions to our stock, and laying out new grounds, or changing old ones, to better suit our improved taste, will give abundant work for November.

Bulbs.—Some are to come out of the ground and others are to go into it. Gladioluses, Tigridias, Amaryllis, Habranthus, etc., should be lifted before the ground freezes. Let them dry off in the sun, and store them away in a cool place, secure from frost and mice. The Dutch Bulbs, such as Hyacinths, Tulips, Crocuses, etc., should have been planted last month, but better now than not at all. These flowers are great ornaments to the garden in Spring, and produce the best effects in masses. The soil should be light and rich, and if disposed to be wet, drainage is to be secured by removing the soil to the depth of 15 inches and putting in a layer of 2 inches of small stones, brick rubbish or the like; put a layer of good soil over this, working in a plenty of old manure. The bed should be 3 or 4 inches above the general level, to allow for settling. In putting out the bulbs, Hyacinths should be set about 9 inches apart, Crocuses 3 inches, and Tulips 6 inches. Hyacinths produce a fine effect when planted in a circular or oval bed, in rows of distinct colors, one within another. The tops of the large bulbs ought to be 3 inches below the surface. After planting, cover with a good coating of coarse litter manure. The bulbs are to be had at moderate prices at the city seed and florist's stores.

Climbers.—All the tender ones are to be removed from the trellises and protected by a slight covering of earth. The Wistaria will not flourish in many northern localities without this care.

Chrysanthemums.—Keep neatly tied up, and when the frost has destroyed the flowers, the roots may be taken up, divided, and re-set.

Dahlias.—Lift the roots on a fine day, before freezing weather. Care should be taken not to break the roots from the stem. Be sure to have them correctly labeled before they are put away. Dry the roots for a few hours in the sun, and store away in a cool vegetable cellar, under the stage of the green house, or in boxes, or barrels of dry sand, in any place where they will not freeze.

Hedges of deciduous shrubs may be set now. Hedges of dwarf pears are highly recommended by friends who have tried them. The young trees are set two feet apart and grown like any other hedge; they fruit very well treated in this way. Such a hedge would be an appropriate boundary between a fruit and flower garden.

Frames and Pits.—The plants in these should have air every fine day and be carefully covered at night. If mice trouble them, set poison or traps.

Lawns.—Rake off the fallen leaves. These will be needed for protecting plants in the borders, or as additions to the compost heap. Give a good top-dressing of fine compost, and roll if necessary.

Perennials.—Phloxes, Dicentra, and others, may be divided and replanted.

Roses.—The tender varieties may be potted and placed in a pit, or cool part of the green house, or be wintered in the cellar. The climbing sorts do better if laid upon the ground during Winter.

Protect all tender things. Even hardy herbaceous plants will come out all the better in the Spring, if a few forkfuls of manure are put over their roots. The broadleaved evergreens, such as Kalmias, Rhododendrons, Holly-leaved Barberry, etc., need some shelter. Cedar boughs stuck in among them, or a rough thatch of boughs made over them, seem to answer better than tying up in straw. Where evergreen boughs cannot be had, a screen can be made with sticks, and a few bundles of straw. This is not needed so much as a protection from the cold of Winter, as to shield them from the changes of temperature in Spring. Even with the Rhododendron some care of this kind will repay all the trouble it costs.

Shrubs and Ornamental Trees.—Hardy sorts may be planted now, taking plenty of time to do it well.

Green and Hot-Houses.

In this country any glass house for plants is popularly called a green or hot house, without making any distinction between the two. Strictly speaking, a green-house is a building intended to preserve tender plants from the effects of frost, and without any regard to growing them. The temperature is kept low—from 35° to 45°. In the hot-house plants are to grow and flower, and the temperature ranges from 60° to 75°, or even higher, according to the character of the plants it contains. Some houses are constructed with a partition, and the heating apparatus so arranged that the advantages of both a green and hot house can be combined under one roof. Of course directions for management can be given only in the most general terms, as each house will require a treatment corresponding with the end to be accomplished.

Where the green-house is used merely for storing plants, the care required is but little. Having put the house properly in order, and stored it with those plants needing winter protection, or which are only to be forced at a future time, attend particularly to ventilation, as the change from out-door air to a confined room should not be suddenly made. During rains, fogs, and frosty weather, the doors and windows should be closed, and before the end of the month some fire heat will be beneficial. Little water will be needed, and but little care in other respects; the

plants may be left to a quiet rest. The decayed leaves should be picked off as they appear, and everything be kept neat. A good stock of bulbs should be potted to be taken to the forcing house at intervals for a winter bloom. The green-house is also the appropriate place for keeping a supply of the various plants to be taken to warmer apartments for flowering during the Winter.

The hot-house should be attractive even thus early in the season, as many of the blooming plants have not ceased to flower since their removal from the borders, and others are coming into bloom. A nearly uniform heat should be maintained, ranging from 55° to 65°, or even 70° in some collections. One of the first things requiring attention, is to have a full stock of young thrifty plants put in a growing condition, to furnish a succession of bloom during the entire Winter.

Bulbs should be brought from cooler apartments only as they are wanted to bloom.

Camellias are beginning to push out anew, and some of the flower-buds are well swollen. Syringe and water more freely, giving them light and air.

Vines will need careful attention, as a little neglect often causes much mischief. Most of the plants being tender, a near approach to the freezing point will check their growth, while too much heat will unduly force them.

Grapes.—Prune and lay down, or tie up vines which have ripened their wood. Give them a season of rest now. If the roots are in an outside border, cover them with manure, straw, etc.

Insects.—Keep them in check at the beginning, or they will increase rapidly. Hand-picking, syringing, and tobacco fumes, are appropriate antidotes.

Pots, tubs, and boxes, containing growing plants, should be frequently examined. Keep the drainage open, remove weeds and moss, loosen the soil, and add liquid manure or rich earth to those plants which are flagging. Prune or pinch to a good form, and have them all arranged in a convenient handsome order, the lower growing varieties in front.

Soil for potting should be liberally provided for immediate and future use, it improves by keeping.

Verbenas, Pelargoniums, Petunias, Salvias, and other bedding plants, should be started from cuttings to provide a supply for winter flowering, and for planting out in the Spring.

Water.—Give moderately, more to rapid-growing plants than to those which are resting. Syringe the floors and walls frequently, to induce evaporation.

Apiary in November.

Prepared by M. Quinby—By Request.

The apiarian who has attended to his work at the right time, and has everything now in the right place, will find but little to do among the bees this month. Hives may be painted at this season without seriously injuring the bees in them. If not satisfied with the condition of the winter stocks, examine them again on a cool day; many things may be now ascertained which were difficult to observe in warmer weather. Kill the bees of very small colonies even now. It is almost impossible to get them through the Winter, and most of the honey, if they leave any, will not be fit for the table.

Any one having the movable combs can make the straw hive available the coming winter. Make the inside of the same dimensions as the wood hive. As soon as ready, any time this month or next, transfer bees, combs, and honey, to the straw hive. To the hive described on page 301 of the *Agriculturist*, there should be added during cold weather, a mat for the top, made nearly like one of the sides. In the "leaf" hive, the frames are not attached to the sides or top. For this, a square box, or basket of straw instead of the wooden box, can be made, to set over the frames for the Winter. Straw hives made in this way, are much superior to the conical style, for wintering the bees, especially if used only for Winter and Spring.

The number of patent hives, instead of diminishing, is increasing yearly. Not one in a hundred possesses any real merit over the old box style. The readers of the *Agriculturist* should be guarded against humbugs in bee hives, as in other matters.

At this season the venders will be around, and if they can ascribe no other merit to their hive, than the fabulous quantity of honey stored, because the bees could work best in their hive, it will be safe to let them pass. If the story of a large yield is true, these peddlers are generally so ignorant in the matter, as not to know it is owing to the colony, pasturage, feeding, robbing, etc. Every body having experience knows that with a suitable cavity for deposit, bees will store as much honey in one place as in another, whether flour barrel, nail keg, or square box. A hive for improved bee culture is not expected to increase the amount of honey, but to facilitate the division of it—so that we can take a portion of it, leaving the rest for the bees—and to render easier the inspection of the interior. Aside from the movable comb hives, it is difficult to find an improvement over the old box, with the surplus boxes added. One not sufficiently acquainted with the nature of bees to take advantage of some of the facilities offered by the movable combs, would do better to use the simple box, until he has acquired the requisite practical knowledge to make the others profitable.

Pumpkins, Squashes, and Gourds.

The **Second Annual Exhibition of PUMPKINS, SQUASHES, AND ORNAMENTAL GOURDS**, at the office of the *American Agriculturist*, 41 Park Row, New York City, opens on Wednesday, **Nov. 4th, 1863**, and the following Prizes will be paid by the Publisher, upon the official award of competent Committees.

CASH PREMIUMS.

A—For the Heaviest Pumpkin or Squash	\$10.00
B—For the 2nd Heaviest Pumpkin or Squash	5.00
C—For the 3rd Heaviest Pumpkin or Squash	3.00
D—For the Best Pumpkin or Squash for cooking ..	5.00
E—For the 2nd Best Pumpkin or Squash for cooking	3.00
F—For the largest yield on a single Vine	10.00
G—For the 2nd largest yield on a single Vine	5.00
H—For the largest and finest collection of Fancy or Ornamental Gourds	7.00
I—For the 2nd largest and finest collection of Fancy or Ornamental Gourds	4.00

*All to be grown by one person and to be accompanied by positive evidence from the grower, and one disinterested person who assists in gathering the specimens.

Note 1.—The specimens receiving the Prizes will remain on Public Exhibition at the pleasure of the Publisher who offers the prizes. The other specimens will be subject to the order of the exhibitors, or they will be sold at auction, or otherwise disposed of, for their benefit.

Note 2.—All Exhibitors must notify us of their intentions by Oct. 15th, and deliver specimens for competition on or before Nov. 2d. Specimens to be delivered free of charge.

Note 3.—The same specimen can compete for only one of the premiums offered above.



Containing a great variety of Items, including many good Hints and Suggestions which we give here in small type and condensed form, for want of space elsewhere.

A Full Basket.—In these pages we present a large number of items, many of which are too important to be overlooked, merely because they are in smaller type.—We have many letters still unanswered. Many who do not find a special reply to their queries will find their answer in some of the more extended articles, or in the Calendar. The great majority of our queries concerning grape vines, for instance, are satisfied in the article on page 340, and so with other articles. We can safely say that the short items given on these pages require more varied information to write them, and more care in preparing them, than the rest of the paper. Questions are often received which we can not answer, nor can any one. New questions occur which can only be settled by actual experience. Asking questions is vastly easier than answering them. There is now on file a letter containing fourteen distinct queries; these cost the writer but little trouble, but it will take a great deal of thought to answer some of them. We do not speak of this with a view to discourage questions, for we like to have them, but to excuse ourselves to those who may think that they are neglected.

Sending the Premium Grape-Vines.

—Premium Vines which were secured last Summer, will be sent out the first week in November. The Concord will be marked by a string tied around each, inside of the oil-cloth, all the others will be Delawares. Unpack

them carefully when received, and slightly bury them, root and stem, in moist soil for a day or two, and then, if to be left long before transplanting, uncover the stem portion. Set out in a dry soil, preparing a deep wide border or bed, with plenty of rotten manure if the soil be not already good. Rotten sods, muck, or black surface soil, make a very good bed. When the ground begins to freeze hard, cover the vines lightly with litter or straw, to prevent alternate thawing and freezing. Too much straw may harbor mice. The vines have had two seasons of growth, and are well rooted. The smallness of the Delaware vines may disappoint some who do not know how weak a growth this variety always makes for the first two or three years. Our vines are fully as good as those of similar age usually sent from nurseries.

Paper Mill Waste.—"R." of Chester

Co., Pa., writes to the *Agriculturist*: "Near my place is a paper mill, from which runs a large quantity of stuff containing soda, lime, ink of old papers, and dirt of the rags. By digging a hole in the ground and turning the wash in, I can obtain it all. Now if I haul weeds, dirt and such stuff, and turn this wash on it and thus compost it, will it be of use to the land?"...There is likewise a large quantity of "bleach" (chloride of lime) thrown out into the race which I can get. "Will it benefit the mixture?" To the former query we answer, *yes*; to the latter, *probably*.

The Expected Crop Reports from

the Agricultural Bureau have not come to hand, at the early date we are obliged to go to press in order to work off our large edition in season. To be of any special value, however, the reports for September should certainly have been ready for the public earlier than Oct. 19th. There is a widespread and growing feeling, that we need at the head of the Agricultural Bureau a man who is more efficient, and less of a politician. There are good men in the subordinate positions—Saunders, Glover, Grinnell, &c.—but what can these avail, if the head be defective. We had hoped for better results than any they yet manifested. Of this more, when Congress meets.

Emigration to Delaware.—G. W. For-

ture, Ashtabula Co., O. There is on foot an organized plan for encouraging emigration to the State of Delaware. The Circular of the Association formed for this object, states its purpose to be "the improvement of the State by the introduction of agriculturists, artisans, manufacturers, and tradesmen from other States. It is proposed to accomplish this by giving information concerning the desirableness of the State as a place of settlement, and by employing agencies to form companies of colonists, and facilitate them in their immigration and location." Governor William Cannon, as President, heads the list of officers. The movement appears worthy of attention from those desirous of changing their location, but our advice in all such cases is for each one to personally visit and minutely inspect any locality, before taking any steps toward settling in it.

An Aged Lady's Investment.—There

resides at Elizabeth, N. J., a lady in her 98th year, who was therefore 18 years old at the close of the Revolutionary War. She speaks like a true patriot of the stirring scenes when the foundation of the Republic was laid, of the Government whose whole existence she has witnessed, and of passing events. She has had some money at interest in bonds and mortgages, but recently transferred it to the U. S. bonds, expressing her desire to aid the Government all in her power. Fortunately, she and many others can now serve both their own and their country's interests by investing in these bonds, for we know of no better-paying good security. Those who took these bonds early in the year, will, the first of this month, receive interest at the rate of 6 per cent. in gold, which at the present premium is equal to nearly 9 per cent. interest. Some interesting information on this topic will be found in the circular on page 348.

Sunday-School Question-Book, No.

2.—The great number of persons who have used the little book called "Lessons for Every Sunday in the Year," will be pleased to learn that "Series No. 2" is to be issued during this month. This new book is on the same general plan as No. 1, and is designed to follow it, though it may be used independently. It has received a great amount of labor, and is very complete. We feel quite sure it will be esteemed the best Sunday School book ever issued. It embraces the whole New Testament, and contains a very great amount of matter condensed into a small compass, and yet in so plain and simple a manner as to be adapted to small children as well as to older scholars. The price (10 cents, or 14 cents if sent by mail) is the same as the first series, and will barely cover its cost. Persons sending for either book should be careful to state whether No. 1 or No. 2 is desired. See last column on page 347 of this paper.

Ought Stable Floors to Slope to the Rear?—Floors thus sloping allow the urine to flow off away from the animals, hence they are so constructed. Geo. P. Bissell, King Co., Wash. Ter., protests against this practice, and presents forcible reasons. He says: "No sound animal seeking rest takes a position with the fore-feet higher than the hind, but rather the reverse. The philosophy of it is, that the fore-legs (of neat cattle and horses) are straight and calculated to support the greater weight (without muscular effort). Suppose the horse to be in motion, then every one can see the hind-legs to be instruments of progression, and that the fore-legs do little more than catch the rebound, and sustain the weight of the body. Do urge it upon the whole world to cease torturing their animals by forcing them to stand with their weight thrown upon their hind-legs."—Mr. Bissell constructs his stable floor of slats, with spaces between them sufficient to let at least all the liquid excrements fall through, while the rear of the stall is $\frac{1}{2}$ to $\frac{3}{4}$ inch higher than the front.

Tight Mangers Objectionable.—G. A. Jenning, Henry Co., thinks that tight mangers may be injurious to the health of horses, as they are required to feed with their noses thrust into the hay or other fodder, and are thus excluded from fresh air, and dust is drawn into the lungs. He proposes a manger made of strips two inches apart, with a frame work follower to rest upon the hay, the latter to have interstices large enough for the horse to readily draw out the hay. This may be somewhat of an improvement, though we do not apprehend injurious results from the use of the box manger.

Scalding Hen Lice.—"H. P." writes to the *American Agriculturist* from Marietta, O., that his poultry house was swarming with lice, which covered the nests, roosts, floor and sides. As an experiment he gave the whole apartment a good drenching with hot water from a sprinkler, repeating it three times, and the vermin have disappeared. They will probably appear again soon, unless the hens also are cleansed. Give them ashes mixed with sulphur in which to dust themselves.

What is the Matter with the Potatoes?—"Workman," has left with us some potatoes of the Prince Albert variety, in which the tubers are studded all over with small potatoes from the size of a small pea to that of a pullet's egg, and asks the cause of this growth. We suppose that on account of the drouth the first formed tubers stopped growing and ripened. Favorable weather following the ripening of the first, a new growth started, and the eyes which would, if planted in Spring produce stems, now develop small tubers. This difficulty being due to a peculiarity of the season, we can suggest no remedy. Gardeners sometimes produce new potatoes in a manner somewhat similar to this second growth of tubers, by keeping potatoes in a cool place through the Summer, retarding vegetation as much as possible, and picking off whatever sprouts appear. In Autumn these potatoes are packed in boxes alternately with layers of light soil 5 or 6 inches in thickness, and kept in a cellar or other place where the temperature is about 60°. In three months they get a crop of small potatoes which are produced at the expense of the large ones, and without any growth of vines.

Farmers' Clubs—How to Organize One.—"G. P.," Athens Co., O. The simpler the organization the more effective. Every member should be able to carry the constitution and by-laws in his head. In case a library is wanted, or any special business is to be conducted, tools owned, or work done by the club, special regulations will be required; but when it is only desired to hold meetings for discussion of agricultural subjects, to exchange ideas and seeds, and have a good social time once a week or fortnight, you will need only a Chairman, to be elected at one meeting to preside at the next, a Secretary and Treasurer perhaps, to be elected for the season. These, with one or two other active men, should constitute the executive committee, and manage the affairs of the club, make some simple rules, appoint meetings, and in short, do every thing which the club does not itself do, all their doings which affect future interests of the club being subject to its approval. The principal responsibility will devolve upon the Secretary, or the Chairman of the Executive Committee, who should be the recognized business man of the club. Clubs which have any other constitution than an understanding to behave like gentlemen, usually neglect it.

Corrosive Sublimate for Trees.—Milton Painter, Balt. Co., Md., writes to the *Agriculturist* that, having an English elm badly injured by insects upon its foliage, he bored a small hole nearly through the body of the tree, filled it with powdered corrosive sub-

mate, and stopped up the hole with wax. This was done six or seven years ago, and the leaves have been nearly untouched until the present time. The same was tried upon small locust trees, and it caused the borers to back out in less than 48 hours, and they have not since troubled the trees. He proposes to try the same treatment for the cure of "black knot." Notwithstanding the testimony of Mr. P., we are quite skeptical upon the subject of medicating trees, and are disposed to attribute his apparent success to causes not connected with the treatment. We should be glad if it were proven beyond doubt that a poison could be introduced into the circulation of a plant in sufficient quantity to render it free from the attacks of insects, and not injure the tree. We do not assert that it cannot be done, but much doubt it. If any other friends have trees upon which they are willing to risk the experiment, we should like to have them try it and report the results. There are plenty of locust, and plum-trees also, fit for no other purpose.

Maiden's Blush Apples.—We have received, through the kindness of N. Farnum and Solon Robinson, a box of apples from the nursery of James Smith, of Des Moines, Iowa. The fruit was all fine, but the specimens of Maiden's Blush were remarkable for their beauty. Nothing more perfect in surface, form, and color, can be imagined than one specimen of this, which is still upon our exhibition table. It is so wax-like in appearance that not only people in general, but distinguished pomologists have doubted, from merely looking at it, that it was a natural fruit. We have had waxen fruit mistaken for the natural, but never before had a real fruit which people insisted upon calling artificial. The deception, if such it can be called, was so perfect that we were obliged to label the apple "not wax." The tree is a good bearer, and the fruit of fair quality for table, cooking or drying.

The Apple Pie Melon.—Mrs. G. P. Cook, Saratoga Co., N. Y., writes to the *American Agriculturist* that she considers the apple pie melon a valuable acquisition to the housekeeper. Her method of using it is, to add tartaric acid or pie-plant (rhubarb) to give flavor in making apple or mince pies. For custards, the stewed melon is strained, thinned with milk to the consistence of sweet cream, seasoned as for ordinary custard, and one egg added for each pie.

Value of Names for Fruit.—Fruit always sells better if it has a name. It should, of course, always bear the correct name, great confusion is often caused by ignorant persons who have fruit for sale, giving false or fanciful names to well known and named varieties. No person, except the originator or introducer of a new fruit should ever name any fruit without consultation with recognized pomological authorities, or the concurrence of some well known pomological, horticultural, or agricultural society. The name should only be given after diligent comparison of the fruit with others, and proving so far as possible, that it is distinct. The name first given with a published description of the fruit, holds.

Plants for Names.—From Water-Vliet, Mich. [address lost]. No. 1, is *Lamium maculatum*, or Spotted Dead-nettle, an old and but little cultivated plant, but quite as pretty as some now cultivated for their variegated foliage. No. 2, appears to be the Blue Gilla, *Gilia capitata*, and No. 3, is not in a condition to be made out. Leaves should be sent as well as flowers....J. M. Lain, Indiana, sends *Cassia Marylandica*, or American Senna. It is one of our most showy plants and is frequently cultivated in gardens. Mr. L. says that under the name of "wild pea" it is used in dyeing a drab color—and asks if it has the tanning principle of sumac. We have not at hand an analysis of the plant, but we doubt if it has sufficient *tannin* to make it available as a substitute for sumac in tanning leather. It is used medicinally like the imported Senna....Mrs. Jane Hill, Stark Co., Ill. The plant is probably *Aster multiflorus*; not usually rare....Harriet, Montrose, Pa. The plant sent is the Long-tubed *Centranthus* (*Centranthus macrosiphon*). It was sent from this office this Spring in our seed distribution....Mrs. H. B. Comstock, Cortland Co., N. Y. The "chickweed like plant" is *Anayalis arvensis*, or Pimpernel, and is not rare near the coast. The spotted leaved specimen is *Mertensia virginica*, noticed in last month's basket. The other specimen is a species of *Euphorbia*, but the seeds are not ripe enough to enable us to determine which....Mrs. F. G. Stanley, Adams Co., Ill., sends *Spigelia Marylandica*, commonly called Pink Root, though it is not at all related to the common pink. The root is a popular worm medicine. It is worth cultivating for the beauty of its flowers....R. C. Smith, New-Haven Co., Conn. The plant is *Phallus impudicus*, the Stinking Morel. It is not to be confounded with the eatable Morel, as it is said to be highly poisonous. The plant is a fungus, is most re-

pulsive in appearance, and has a smell worse than a con-
gress of dead rats. It springs up where there is decay-
ing vegetable matter. Probably a free application of salt
would destroy the underground fibres from which the
aboveground offensive portion springs. A digging out
and removal of the soil for a few feet around the place
where it appeared would be pretty sure to exterminate
the disagreeable visitor....A. Heus, Medina Co., Ohio.
The plant suspected of poisoning sheep is some kind of
an *Eupatorium*, but as you have sent us no leaves, we
can not make out the species. It is not likely to be the
cause of the trouble....A. F. Alden, Peoria Co., Ill.,
sends us *Cuphea viscosissima*, the Chummy Cuphea.
With Gray's Manual, the minute observation which has
evidently been given to the plant, would certainly have
led to the proper name....Mrs. Wall, Alleghany Co.,
Penn. We can not determine the plant with any cer-
tainty from the leaf sent. It would be guess work. Send
flower or fruit....H. E. Eastgate, Ulster Co., N. Y. The
vine is *Chogens hispida*, the Creeping Snowberry.
It is not closely related to the shrub commonly known as
Snowberry, but is more nearly allied to the Wintergreen
L. Norton, Onondaga Co., N. Y. The vine is *Clematis*
virginiana, the Virgin's Bower. It belongs to the Ran-
unculaceae family, but you probably did not make out be-
cause the flowers are often diecious. It is worth culti-
vating as a climber, being very pretty in flower and fruit.

Is the Strawberry a Fruit?—A. F. Alden, Peoria Co., Ill. There are many things popularly called fruits which are not such in the strictly botani-
cal sense of the term. The true fruit of the strawberry
is the little grains which are distributed over or imbedded
in the pulpy portion. Each of these grains is a little one-
seeded fruit, and results from the ripened ovary of one
of the many pistils found in the blossom. All these pis-
tills are crowded on the flattish portion in the center of the
flower, called the receptacle. This, as the ovaries ripen,
enlarges, becomes pulpy and fine flavored, and forms
what we call the fruit. It will be seen that the straw-
berry is a fruit or not, accordingly as we use the word in
a popular, general way, or in a restricted botanical sense.

Planting Strawberries.—D. F. Marck-
res, Conn. Fifteen to 18 inches apart, and one plant in the
place is near enough. If the runners are pinched off, the
plants will form large crowns, and the leaves of adjacent
plants will touch one another. Plants forced in the
house in the Winter will not fruit again in the Summer.

**What Grapes to Plant—200 Vines
to Produce Grapes for the N. Y. Market.**
—At almost all times, and especially since our recent
Grape Exhibition, inquiries are addressed to the Editors
of the *American Agriculturist*, asking: "What grapes shall
I plant." For example, a gentleman says, "I want to put
out 200 vines to raise grapes to sell at the most profit in
New-York." We advised: 20 *Creveling*, 25 *Hartford Pro-
lific*, 80 *Concord*, 30 *Delaware*, 20 *Union Village*, 10 *Diana*,
and 15 *Allen's Hybrid*; and for the following reasons:—
The *Creveling* is a fair grape, and being one of the earliest,
will sell well on this account alone. The *Hartford* is next
earliest, very prolific, of fair quality, and will therefore sell
well. The *Concord* will yield more pounds than any
other, for the same trouble and number of vines, and is
also of good quality, so that most people will buy it also.
The *Delaware* grows slowly, and does not yield largely at
first, but its superior quality will command a good price
from a considerable class of persons. The *Union Vil-
lage* is very large, of fair quality, will sell well for its
size alone. The *Diana* is of peculiar flavor, light color,
and will suit a particular class of buyers who will pay
more for it than for the black grapes. The *Allen's Hy-
brid* is the most promising hardy white grape we have, is
delicious eating; the fruit will sell at a high price.—The
above list we submitted to a large meeting of Fruit
Growers, and it met with almost unanimous approval.
Two or three objected to the *Diana*; with us it does very
well. The above list be it noted is for market purposes
in New-York, though it is not a bad list for home use,
and may answer for other cities north of Washington.

**"Rats," "Mice," and "Water-
falls."**—Most of our lady readers know that the cush-
ions over which ladies' hair is dressed a la mode, are
called "rats," from some fancied resemblance. The
names "mice," and "cats," are given to the smaller
and larger cushions; while the hair is dressed in fanta-
stic forms called "bows," "waterfalls," "butterflies,"
etc. A dashing Philadelphia belle, leaving an order for a
hair-dresser to attend at her residence, added "Bring two
rats, four mice, a cat, and a waterfall."—"Poor young
thing," said a smooth haired Quaker matron, who heard
the order, "she's lost her mind."

Steamed Fodder—Testimony Wanted.—Will not some of the readers of the *Agriculturist*, who practice steaming fodder for cattle, give their experience. What kind of a boiler is used? Does the waste steam from an engine impart a flavor offensive to stock? What estimate of the net savings can be made?

Butter Dairy.—"E. S. M. H.," of Otsego Co., N. Y., from six cows, made and marketed 1100 lbs. of butter, besides using all that he wanted in his family. This from a dairy herd consisting of 4 old cows, and 2 two-year old heifers. Next year he calculates on making an average of 200 lbs., at least, to each cow.

Milking Machines.—"T. J. B.," of Oregon. No machine has yet been devised which stands the test of use. Few, if any, of the many articles patented for this purpose, are now offered for sale in this country.

Swans in the Central Park.—"S. G. Harvey," Woodford Co., Ky. The swans are a success here, and would be with you. Some of the first importations died, partly from not understanding their habits, and partly owing to improper food given them by visitors. There are now some 25 or 30 of them, sailing majestically upon the lake in the Central Park; they are so tame they will eat out of one's hand.

Leached Ashes.—"A Young Farmer in Windsor, Ohio, asks: "How much can one afford to pay for leached ashes and haul them $\frac{1}{4}$ mile for a clayey soil."—"Better pay 25 cents per bushel for unleached than 5 cents for leached ashes as a general thing, but after all the leached ashes may be worth to you even the former price. They are often an excellent application to grass land, and a desirable ingredient in composts from which they do not liberate the ammonia. You will have to experiment for yourself, as the effects of leached ashes are very different on different soils. On many parts of Long Island, farmers prefer to pay from 14 to 28 cents per bushel rather than do without them. Hundreds of canal boat loads are brought from the interior and western New-York, and sold here.

Will it Pay to Buy and Haul Manure.—"C. G. M.," Highland Co., Ohio, can get manure by paying 25c. per load, and hauling it to his farm $\frac{1}{2}$ mile—and asks will it pay? Figure it thus: Manure 25 cts.; man and team (going empty 10 minutes, loading 20 minutes, returning loaded, 30 minutes,) 1 hour's work 25 cts.—total cost 50 cents; and then ask yourself if a load of such manure as you can buy will be worth 50 cents on your farm. It probably will be worth at least three times that, if you make a proper use of it.

To Char Saw-dust.—"A. L. B.," of Perry Co., Pa. Saw-dust may be charred in any vessel from which the air can be excluded, and which can be exposed to a strong heat, a gas retort for instance, or an old stove-pipe covered with a coat of clay and sand, having one end stopped tight, and the other only partially closed, to allow the free escape of the gases evolved during the heating.

Refuse (hair and bits of hide) of Tanners.—"Frank," of Louisville, Ky., asks what to do with this refuse, and if he may add lime to it?—"Compost it with good soil if you have not peaty muck, grass sods, weeds, straw, etc. It will convert a great bulk of vegetable substances, otherwise not worth much, into good strong manure. Don't let lime or unleached ashes come near it. Apply it to any crop benefited by good stable manure, and after a little practice you can judge of the strength so as to graduate the application according to the needs of the crop and the land.

Brakes in Pastures.—"B.," Providence, R. I., writes that he has succeeded in destroying brakes in land where they rendered several acres useless, by mowing them while they were in full and vigorous growth—once near the end of June, and again in August. After the second year they have mostly disappeared.

Lime—A Chemical Question.—"Why does lime or ashes act as a disinfectant, and yet release the ammonia from manures?" asks "J. R. P." The action of lime on organic matter is much like ley upon the grease and matters mixed with it in soap making. Ammonia being formed only as nitrogenous substances reach the final stage of decomposition, when the lime or ashes is added to any substance in which ammonia exists really formed, the ammonia escapes, and further decomposition is in a measure checked.

Roots or Corn.—"A farmer of Lawrence Co., Pa., asks: "Does the culture of roots pay equal to

that of corn?" and "which is most profitable, rutabagas or beets?" There is no doubt but ordinarily more nutriment may be obtained from an acre in rutabagas or mangels wurtzels, than from an acre of corn. This does not settle the question "which pays best." Corn is a much more concentrated form of food, adapted to different uses; both are excellent, and no stock farmer should neglect either crop. For milch cows, beets (either the French sugar, or the mangel wurzel,) are best; for other stock, rutabagas are equally good, and probably yield a greater amount of nutriment per acre. A variety of roots is always useful; sometimes the fly hurts the turnips while the beets escape; or a blight may attack the beets, and turnips escape injury. Avoid relying on one crop.

Clover Seed Hullers.—Many inquiries have been received at the *Agriculturist* office for information concerning the price of clover seed hullers, where they may be obtained, etc. We usually refer such parties to reliable agricultural warehouses, but it would be money in the pockets of the manufacturers of good machines, and a great saving of time to us, if they would properly advertise articles wanted by the public.

Highly Agricultural.—Among the prizes offered at an Agricultural and Horticultural Society held in one of the Eastern States this year, were two silver cups for the best rifle shooting!—An extra entrance fee of 25 cents was charged for admission to this part of the performances.

Costly Rabbits.—A suit has recently been decided in England awarding \$500 damages to a tenant for injuries to his crops by the landlord's rabbits. They gnawed through the dividing hedge and destroyed the wheat and vetch crop to that amount. The decision is regarded as an important one to those renting lands where the game laws prevent entrapping or shooting game, even on leased premises, except by special license.

Toads in Market.—Live toads form a regular article of commerce in the London Market. They are generally imported from France, and sell for from 50 cents to \$1 50 per dozen, according to size and activity. They are purchased by market gardeners in the vicinity of the city, to protect their choice vegetables from slugs and insects, which they do very effectually.

Weeping Willows not Hardy at the North.—"S. T.," Waldo Co., Me. The weeping willow, when well grown, is a very beautiful drooping tree, but can not be relied upon in your northern climate. It often winter-kills in latitude 42°, on the Atlantic coast.

Elm Trees and other Vegetation.—A subscriber in Boston, Mass., says that he has been advised to cut down his elm trees, as they will destroy all his flowering shrubs, etc.—The Elm makes a dense shade and its abundant surface roots extend to some distance.—Shade is not generally favorable to flowering shrubs, and but one set of roots can well occupy the same soil. Beyond the extent of these influences, the elms can not exercise any prejudicial effect, that we know of.

Fruit from Iowa.—Wesley Redhead, Esq., Pres. of the Des Moines Horticultural Society, brings us some specimens to show that fruit can be grown in Iowa. We certainly never saw finer Rhode-Island Greenings, Lyman Pound Sweet was of very large size, and Bolmar's Washington Plum of excellent quality. Mr. R. informs us that Mr. Smith, one of his neighbors, and the oldest tree cultivator in the vicinity, has about 4000 bushels of apples which will bring him from \$1 50 to \$2 per bushel. The Diana Grape has done well this season, but the Concord is the most successful variety.

Pears for New-York Market.—"J. S. Fisher," Niagara Co., N. Y. The Bartlett pear always sells readily in this market, at high prices, if well grown, and received here in good condition. They brought \$12 to \$25 per bbl. the past season. The White Doyenné, (Virgalleu) is a good pear to raise in localities where it does well. It will probably grow fair with you, and is a high priced, well-known pear. There are many other excellent pears, but they have less reputation in this market—the Seckel excepted. The Louise Bonne is not a favorite in this market. Better set mostly standards.

Large Flemish Beauty Pears.—"E. W. Hewitt," of Astoria, L. I., placed on our exhibition tables two very fine Flemish Beauty pears, the product of a dwarf tree which bore this season for the first time. They measured one foot in circumference, and weighed 17 and 17½ ounces respectively. The trees were highly manured from the pig pen.

Cranberries in Canada.—A reader of the *Agriculturist* in Tavistock, C. W., asks if cranberries will do well there. They doubtless will—as they thrive in Michigan, and the difference of climate is not great.

Raspberries Killed in Iowa.—"Ada Martin," Clark Co., Iowa. You have too tender sorts. The Hudson River Antwerp, and Belle de Fontenay, are probably the best to stand your severe winters. All raspberry canes are better for being covered in Winter. Bend down and cover with a little earth.

When to Set Grape Vines.—"J. Camp," Westchester Co., N. Y. Early Fall, soon after the leaves have fallen, is a good time for setting hardy grape vines. The ground is usually sufficiently moist, and the roots will often push out fibres before Winter, and in Spring be ready for an early start. Besides, there is more leisure in Autumn, and the transplanting can be more carefully done.

Fruit Pictures.—Among the many interesting articles on Exhibition at the *Agriculturist* office, special mention should be made of a series of twelve oil paintings representing the fruits ripening during the successive months of the year. They were copied from specimens shown from time to time upon our Exhibition Tables, and are well executed. They were painted by Miss Anne Newberry, of Brooklyn, N. Y., a young lady who gives promise of great excellence in this pleasing department of the fine arts.

White Lilies.—"Ada Martin," Clarke Co., Iowa. These are hardy in much colder latitudes than that of N. Y. We have no doubt that they would live without protection; but some litter thrown over the surface ought to make them safe. If you prefer to take them up, do so after the leaves are killed and before the ground freezes, and put them in earth in the cellar.

Plans for Farm Houses.—"W. C. V.," Jefferson Co., Ind., sends to the *Agriculturist* a plan for a one story cottage—good in many of its details, but faulty in others. There are five rooms, and five outside doors, all opening directly into the rooms. There are two porches or small verandahs. One broad piazza or verandah would be preferable and would in Summer be almost like another room. There are only two closets—there should be many. There is no provision for wood-house, wash room, etc. There are three chimneys, two of which are in outside walls. Chimneys should be in inside walls so as to retain the heat in the house. Two outside doors are usually enough for any small house, and they should if possible open into entries or halls in which the stair-cases may be placed, and much room saved. In general, study to have as little outside wall as is compatible with convenience.

Round Flued Chimneys.—"W. C. V.," Jefferson Co., Ind., constructs his chimneys with round flues. Setting a joint of 9 inch stovepipe as a mold, he builds, filling in around it with mortar, brick, or stone and then drawing up the pipe as the wall progresses.

Salting Beef.—"George A. Lowell," Washington Co., Me., inquires for directions for salting beef in the Fall so that it may not spoil by the following June, and yet not have it too salt and hard to be palatable. Will those having successful experience, please communicate their methods for the general benefit.

An Ingenious Swindle.—The Yankees are generally supposed to be the cutest swindlers, but the following shows that some other nations are not far behind. At a show of implements in England there was a trial of steam engines, and one rough little portable machine surprised every one by apparently doing the most work with the least fuel. The fireman was shoveling in only old cinders and ashes, and yet the fire-box was full of flame. At last the secret was discovered. One of the fire tubes had been previously filled with grease, and plugged up with wood. As soon as the plug was consumed, a flood of combustible matter was added to the fire, which kept the engine running long after its due portion of coal had been consumed.

Silk from Utah.—"Mr. O. Ursenbach," Fe la Harpe, sends us a fine specimen of raw silk, raised by him at Great Salt Lake City. He thinks that the raising of silk will in time become an important branch of industry in Utah. Next year he proposes to feed a portion of his worms on knot-grass (*Polygonum aviculare*) which he says has been successfully used in Italy. We shall be glad to hear the result.

Fall Sown Fife Wheat.—A. E. B. Hall, Minnesota, requests some reader of the *American Agriculturist* to communicate an account of the results of sowing Fife wheat in the Fall.

Keeping Celery in Open Ground.—M. H. Wetherill gives the following as his plan: A trench is dug about two feet deep, from one to two feet wide, and as long as required. Two boards, one an inch or two wider than the other, are placed lengthwise of the trench, and on the ground, in a position to support the roofing these are kept in place by pieces tacked on the ends. The roofing is made of boards sawed to a proper length to cover the frame crosswise and project an inch or two over each side. The celery is set up in the trench, commencing to pack at one end and crowding it close together. The boards are then put over, covered first with straw, and then with sufficient earth to prevent freezing. In removing for use, begin at one end, taking off a roof board at a time, and fill up the trench with the straw as the celery is removed.

Japan Melon Seed.—We have several inquiries for this seed, but have no stock from which to supply the demand. It is for sale by Thorburn, by Lane, and, we suppose, by other dealers in seeds.

New Zealand Spinach.—Fine specimens from the garden of Wm. Shaw of Staten Island, were exhibited at the office of the *Agriculturist*. It is quite distinct from the common Spinach, and is regarded as a delicious vegetable. It grows very luxuriantly, its trailing branches spreading over the ground for a distance of 3 feet or more in every direction, and furnishes a supply of fine succulent leaves during the hottest weather.

Large Cucumber.—T. J. Carleton, Hampden Co., Mass., has placed upon our exhibition tables a cucumber—variety not known—13½ inches long, 15 inches in circumference, and which weighs 5 lbs. 3 ounces!

Propagating the Yucca.—G. Wolf Holstein, Lawrence Co., Pa. This is usually propagated by separating the offsets or suckers which are thrown up abundantly. It may also be grown from seed.

The Hermosa Rose.—"M. M. T." Pendleton, Indiana. All the Bourbon roses flower better for some protection, even the hardier ones. We can not tell how this variety would do in your particular locality. If in doubt, tie it up in straw and bank earth around it, or put it in a pot or tub, and winter it in the cellar.

Evergreens for Shelter.—"H. E. P.," New-Jersey. Red Cedar, Arbor Vitæ, or Norway Spruce, will each of them make a good shelter to your garden. They will take several years to grow, and a close board fence will give you the needed shelter at once.

A Word from a Laborer.—J. W. John, Woodford Co., Ill., objects to the plan proposed by a writer in our columns, for securing faithfulness in laborers by requiring all seeking employment to produce a certificate of good character from their previous places, before engaging them. He says there are as many dishonest masters as servants, and such an arrangement would give the former an undue advantage. There is undoubtedly some truth in this view, but it would be difficult for a man known to be untrustworthy, to deprive a laborer of his good name by refusing him a certificate; while the possession of such a document is usually beneficial to a person seeking an engagement.

Walnut vs. Oak.—A subscriber in Niagara Co., N. Y., writes: "Black-walnut stumps last longer in the ground than oak. I can not say about posts. I have replaced one of walnut which has stood 17 years."

English Ivy in Illinois.—"Bay," of Madison Co., says that the Ivy will flourish in that State in a northern or, preferably, in a western exposure.

Camellias.—Chas. Edsall, Orange Co., N. Y., asks how to propagate and treat Japonicas. The name of this plant is *Camellia Japonica*, and it is better to call it *Camellia*, as *Japonica* is used as a specific name for many other things, and has no definiteness. It is hardly practicable to propagate them without a green-house. The double sorts are grafted on the quicker-growing single kinds. The stocks are propagated from cuttings, which root very slowly. The plants require a light soil, with a good share of vegetable matter. Peaty earth mixed with sand or earth from soils which have been decomposed will answer. The great difficulty in the cul-

ture of the *Camellia* in rooms, is the dryness of the atmosphere and the uncertain temperature. They should be in a room where the temperature never falls below 45°, or gets higher than 70°. Occasional washing of the leaves will contribute much to the health of the plant. We have had them flower finely when kept in a room where there was no fire, removing them at night to a warmer room when there appeared to be danger of frost.

G. Wolf Holstein, Lawrence Co., Pa. Camellias can be raised from the seed, but it is a very slow process, and is not to be recommended unless you have plenty of room and a taste for uncertain experiments. You may raise hundreds, and when after some years of waiting they come into flower, there may not be one worth growing.

Vinegar from Apple Pomace.—It is worth remembering that after thorough pressing, the pomace still contains much sugar, which we may extract and make into good and salable vinegar. Wet up the pomace with as much water as it will hold, adding more from time to time until the mass becomes pulpy and well swelled out. Press it and let the extracted liquid ferment. When the alcoholic fermentation has taken place to a considerable extent, the cider may be poured so as to trickle slowly through some pomace mixed with straw and placed in a hoghead with holes in the bottom. This will promote the acetic (vinegar) fermentation, and besides it will add to the strength of the vinegar each time it is poured through the pomace.

Bark Louse—Another Remedy.—Wm. H. Washburn, Maine, writes that he has successfully treated his trees in the following manner: He makes a wash of 4 gallons of water, 3 pints of soft soap, 1 lb. of sulphur, 1 pint of salt, and 3 or 4 lbs. of lime, and enough clay to make the mixture as thick as cream. When vegetation begins to start in the Spring, the trees are thoroughly scraped, and the mixture applied by means of a brush (stirring occasionally), to the trunk and limbs. He says that two years of this treatment have completely freed him from the annoyance.

Silkworms' Eggs.—Will the lady who sent us some eggs last Spring, have the kindness to send us her address, if she will have more to dispose of?

Keeping Cider Sweet.—T. F. Boyd, Orange Co., N. Y., and others. Sulphite (not sulphate) of lime is used to arrest the fermentation of cider or to prevent it altogether. We have no experience in its use. It is sold by druggists with directions.

Michigan Agr'l. College Lands.—We learn from the Hon. Justus Gage, of the State Board of Agriculture of Michigan, that the State has accepted the land grant, and that a Commissioner has been appointed to locate the 240,000 acres donated to that State for Agricultural College purposes.

Salt Meats for Army Use.—The Government has purchased in the city of New York for the use of the army, within the year ending October 31st, 7,349 barrels of mess beef, 42,288 barrels extra mess, in all 49,637 barrels of salt beef. Pork, 86,449 barrels mess, and 87,028 barrels prime mess, in all 173,477 barrels of salt pork—besides, 5,836,258 pounds of side bacon, 1,805,068 pounds of shoulders, and 1,697,277 pounds of hams, making a total of 9,338,603 pounds of cut meats; and of pork in all forms no less than 41,034,003 pounds. These figures are from official sources.

Salting and Packing Pork.—[The following is from one whom we looked up to as a good farmer, at the then West, some thirty-five years ago. His penmanship shows that more than forty, perhaps fifty years of active labor on the farm have not dimmed his eye, nor stiffened his muscles, nor rendered his nerves unsteady.—Ed.]—"A subscriber wishes to know through the *Agriculturist* the best method of salting pork." I will tell you my mode, after an experience of 40 years. I allow the hogs to cool after killing, take out the bones; [ribs and spine] cut off the hams and shoulders; then cut the side pork into strips of convenient width; put a quantity of salt in the bottom of the cask; then put in a course of meat, laying the pieces on the edges; then a covering of salt; then another course of meat, and so on until the cask is full. The whole is carefully kept covered with brine as strong as boiling water and salt will make, skimming the boiling brine so long as anything rises. The brine is put on cold, and I am careful to know that there is always undissolved salt in the barrel. It is not found necessary to scald the brine in Spring. I sometimes use saltpetre, and sometimes not. Hams and shoulders are salted in separate casks. I know of no reliable method of cleansing tainted casks, and would not take a wagon load as a gift, for storing meat."

Exhibition Tables at the Office of the American Agriculturist.

The following articles have been placed on our tables since our last report:

FRUITS.—Apples: Fine collection from Andre Leroy, Angers, France... Duchess, a fine new seedling; C. H. Rogers, Stormville, N. Y. York Pippin and King; Sutphin Chadwick, West Washington Market, New-York. Gloria Mundi; Richard Weeks, Lakeland, L. I. Roxbury Russet; Mr. Livingston, Fort Lee, N. J. Pompey; E. Williams, Mont Clair, N. J. Gloria Mundi; Mr. Devoe, Morrisania, N. Y. Lyman Pumpkin Sweet and R. L. Greening; Wesley Redhead, Fort des Moines, Iowa. Collection of Crab Apples; E. Frost & Son, Rochester, N. Y. Turnbull's Sweeting and Higby's Sweet; H. K. Huggood, Warren, O. Alexander, very fine; Daniel Ball, Perry Center, N. Y. Pound Sweet; E. Williams, Mont Clair, N. J. Fine collection presented by Solon Robinson, from James Smith, Des Moines, Iowa. Crab Apples; Ambrose Baldwin, Gerard, Mich., by Solon Robinson. Collection of Apples; S. A. Tabor, Vassalboro, Me. Sawe-well; Jesse Ryder, Sing Sing, N. Y. Newtown Pippin of 1862; A. P. Cummings, N. Y. Sheep Apple and Apple for name; Mr. Van Brunt, Fort Hamilton, N. Y. Maiden's Blush; J. D. Van Name, South-st., N. Y. Twenty-oz. Pippin, grown by P. M. Browning, Chatham Four Corners; O. F. Browning. Orange, Baldwin, Hawthornden, Granny Winkle, Chesebore Russet, and specimen for name; E. Williams, Mont Clair, N. J. Pears: Fine Collection of varieties; Andre Leroy, Angers, France... Duchesse d'Angoulême, 19 oz. C. A. Fuller, 36 Warren-st., New-York. Flemish Beauty, very large; E. W. Hewitt, New-York City. Beurre Clairgeau, Duchesse, Baked fruit, and one for name; E. Williams, Mont Clair, N. J. Striped Virgeline; Mr. Van Brunt, Fort Hamilton, N. Y. Seckel, 5 oz.; W. Kendall, Cold Spring, N. Y. Seckel, 5½ oz.; James Van Brunt, Fort Hamilton, N. Y. Louise Bonne de Jersey; C. Smith, Morrisania, N. Y. Seedlings; Jas. M. Hannah, Salem, N. J., by Solon Robinson, New York. Oswego, Beurre Diez, Bezi de Montigny, Urbaniste, Seckel, Alexander, Flemish Beauty, Louise Bonne de Jersey, Ganselies Bergamot; G. Zimmerman, Pine Hill Nurseries, near Buffalo, N. Y. Beurre Bosc and specimen for name; A. A. Leverich, Bowronville, L. I. Fine Duchesse from tree 18 months old; S. R. Trembley, Bergen Point, N. J. Duchesse; Wesley Redhead, Fort des Moines, Iowa. Branch of George IV., very full; Dr. Sanford, Ravenswood, N. Y. Peaches: Seedling; Mr. Howard, Brooklyn, N. Y. Specimen for name; S. R. Howland, Brooklyn, N. Y. Crawford's Late; C. A. Fuller, 36 Warren-st., N. Y. Branch in bearing; S. R. Trembley, Bergen Point, N. J. Seedling from Melocoton, fine; R. B. Dore, 203 West 14th-st., N. Y. Crawford's Late, Melocoton; R. & J. L. Burroughs, Woodville, N. J. Smock, Sutphin Chadwick, West Washington Market, New-York. Grapes: Diana, Delaware, Isabella, Concord, Clinton, Rolander (foreign grown out of doors); G. Zimmerman, Pine Hill Nurseries, near Buffalo, N. Y. Taylor's Bullit, Diana, Concord; E. Williams, Mont Clair, N. J. Hartford Prolific, Isabella, and Catawba; J. A. B. Paradise, Jersey City, N. J. Seedlings; Jas. M. Hannah, Salem, N. J., by Solon Robinson, New York City. Fine cluster; Mr. Dater, Harlem, N. Y. Other Fruits: Apple Quince; A. A. Leverich, Bowronville, L. I. Belle de Fontenay Raspberries; Moses Baker, Lyon's Farm, N. J. Australian Strawberry Plants in bearing—commenced fruiting June 13th; J. C. Haines, East New-York, L. I. Large Quince, 13 oz.; C. A. Fuller, 36 Warren-st., New-York. Double Musk Melon; John Chambers, Scarsdale, N. Y.

FLOWERS.—Lantanas variety, fine Dahlias; W. and J. Cranston, Hoboken, N. J. Night-blooming Cereus; George Stillwagon, Flushing, N. Y. Dahlias; E. L. Walton, Bergen Point, N. J., J. D. Hegeman, N. Y. City, Mr. Tremaine, Hudson City, N. J., and C. S. Pell, N. Y. Orphan Asylum. Balsams and Pansies; W. & J. Cranston, Hoboken, N. J. Tom Thumb Cockscomb; L. Bodenberger, Williams Bridge, N. Y. Named Seedling Verbenas, very fine; Wm. Dayison, Florist, Brooklyn, N. Y. Fine show of Cut Flowers; Mr. Kavanaugh, Florist, Brooklyn, N. Y. Sunflower 41 inches in circumference; Mr. Miller, N. Y. Dahlias and Tuberoses; Charles Hais, New-York City. Passiflora Decalstne; A. P. Cummings, New-York City. Splendid Collection of Cut Flowers; Isaac Buchanan, Florist West 17th-st., New York. Dahlias; C. T. Croice, Gardener to James Gordon Bennett, Fort Washington, N. Y. Fine Bouquet; Miss M. A. Cortelyou, Staten Island.

VEGETABLES.—Peach Blow and Bulkley's Seedling Potatoes; E. S. Allen, 102 Chambers-st., New-York. Curious Potato, "Japanese Tommy;" G. M. Usher, Port Richmond, N. Y. New-Zealand Spinach, (*Tetragonia expansa*) Prince Albert Potatoes, very knobby, and fine Lima Beans; Wm. Shaw, Staten Island. Club Gourd, (63 inches long); James Angus, West Farms, N. Y. Chinese Egg Plant; Jacques B. Hegeman, New-York City. Purple Egg Plant, 4½ lbs.; Thos. Davenport Passaic, N. J. White Flint Corn, J. J. Van Nostrand Palisades, N. J. Mexican Peppers; Mr. Swain, Bronxville, N. Y. Scarlet-Runner Beans; W. W. Davis, Jersey City, N. J. California Tomato; J. B. Hunter, Tremont, N. Y. Wakefield Sweet Peppers, Egg Plant Vegetable Marrow, Hybrid Squash, (Cuba and Vaipaisa), 147 lbs.; James McCabe, North Orange, N. J. Seed Chinese Potato; G. M. Usher, Port Richmond, N. Y. Prince Albert Potato; Walter Keeler, North Salem, N. Y. Peach-Blow Potatoes; James Lyon Nyack, N. Y. Purple Egg Plant and Vegetable Eggs; J. L. Miller, Richmond, N. Y. California Tomato, 1 lb. 11 oz.; L. A. Berte, Tremont, N. Y. Club Gourd; W. W. Woodward, Brooklyn, N. Y. Crook-necked Squashes and Orange Beets; Jesse W. Perkins, Gardener to St. Joseph's Hospital, New-York City. Large Radish, 3 lbs.; John Bullock, Bay Ridge, N. Y.

MISCELLANEOUS ARTICLES.—A series of 12 beautiful oil paintings representing fruits in season each month. Miss Anne Newberry, Brooklyn, N. Y. Specimen of Saginaw Salt; Mr. Smith, East Saginaw, Mich. Specimen of Cotton; J. S. Meeker, Piscataway, N. J. Fruit of Osage Orange; Mr. Van Brunt, Fort Hamilton, N. Y. Same weighing 26 oz.; J. B. Tindall, Yonkers, N. Y.

Gold up—Effects upon Farmers.

At the time of this writing (Oct. 14th,) the Wall street bulletins mark gold at 154, and upward, and exchange on London 169½. That is, it takes \$154 of the general Legal Currency of the country to buy one hundred gold coins that were formerly reckoned as dollars, and a little more to buy a draft on London payable in gold dollars or sovereigns. [The peculiar style of reckoning the nominal par of exchange at about 110, or 10 per cent. above the real par, (or \$144 to the Pound Sterling,) accounts for the apparent discrepancy between the quotation of gold, and that of exchange. Ten per cent added to 154, makes very nearly 169½. The difference between gold here and in London is generally only ½ to 1 per cent., which pays the cost of shipping it from one place to the other.] Merchandise imported from abroad is paid for in gold, or in Exchange bills drawn against gold, or against flour, grain, meats, lard, tallow, cheese, etc., exported from here.

The effects of a rise in the market value of gold, upon the prices of farm products, are readily seen. Owing to abundant crops abroad, breadstuffs are not now in great demand there. England imports an equivalent to 25,000,000 to 40,000,000 bushels of wheat, even in the best years, buying it where it can be most cheaply obtained—on the European Continent, or in America. This year we have to compete with considerable supplies from the Baltic, the Danube, etc., whence it can be obtained at prices nominally cheaper than here. But the greater relative value of gold, and consequently of Exchange, makes it more profitable to buy breadstuffs and provisions from us. To illustrate: Suppose wheat to be worth \$1.20 per bushel in London. A merchant in New York wishing to pay for a bill of goods in London, amounting to \$6000, can do so with 5,000 bushels of wheat delivered there, or with a bill of exchange, which at 154, (the price of gold,) will cost him here, \$9,240 in currency. He could then just as well pay this sum for the 5,000 bushels of wheat (about \$1.85 per bushel,) and send that—or say \$1.65 per bushel, allowing 20 cents extra per bushel for sending it. All that he can save by buying below \$1.65, will be clear profit. If, on the contrary, gold were down to par, he could pay only \$1.00 per bushel for the wheat. The same is the case with all other exportable products—corn, wool, provisions, etc. (The transactions are generally carried on by several parties, thus: The exporter ships his articles and draws bills of exchange against them, payable in 60 days or thereabouts. The foreign exchange dealers buy these bills, less interest and profit, and sell them to the importers who send them over to pay for their goods. There is a mutual system, by which a bill drawn against shipments to Liverpool, for example, can be used in payment for manufacturers' wares in any part of Europe, and even for teas and silks bought in China.)

But the chief fact we desire to illustrate, is, that any advance in the relative value of gold increases the sale of exportable farm products, and sends up the prices. The higher price of these increases the prices of other products. The cost of transporting products from the interior to the seaboard is nearly uniform, so that any advance experienced here, is felt throughout the country. We are not arguing that gold at 154 indicates a healthy financial condition of the country as a whole; we are merely stating that it is specially advantageous to those who raise any kind of farm products to sell. "But"

says the farmer, "the same causes which carry up the prices of my products also increase in the same ratio the cost of what I have to purchase." This is in part true; but it is to be noted that only a small part of the proceeds of his wheat, corn, wool, butter, etc., are used in paying for imported goods of any kind—cloths, silks, etc. Nine out of ten farmers are in debt for land, for stock, for implements, and for store bills. The legal currency they receive for their products, will cancel these debts, dollar for dollar. And right here is the "moral" or practical lesson we are endeavoring to impress upon every farmer who reads the *American Agriculturist*, viz: that now is the time to economize and get out of debt. Money is plenty, and the temptation is to run into extravagance in dress, in furniture, and in living generally. Better use every possible dollar in cancelling old debts. Let the purchase of luxuries or mere conveniences in dress, furniture, etc., be deferred until these things come down to the gold standard—at least if there is a dollar due to any body that will take it now. When Gold is "up," SELL all you can, and BUY the least possible.

Going to the Post Office to Buy a Farm.

Judging from the letters and queries received, there are now more buyers than sellers of farms. It is difficult to answer judiciously, the frequent inquiry, "where shall I locate?" for much depends upon personal circumstances—habits, family, previous experience, etc. A young man, of vigorous constitution, with but a small, healthy family, and his children yet in infancy, may well strike for the cheap lands of the West. There he can grow up with the country. Schools and good society will come in by the time his children are ready for them. With good morals, and good working habits, the chances of success are very favorable. The mid-western States are peopled by well-to-do families whose heads are the enterprising young men and women of the above class, that swarmed from the Eastern hives, fifteen to thirty years ago. They are now the respectable citizens, honored and looked up to—the real "bone and sinew" of the land. Other considerations must decide the question for those more advanced in life, and having larger families. These will be discussed from time to time in the columns of the *American Agriculturist*. Allow us to introduce here an extract in point, from the letter of an old reader, whose long observation of men and things gives weight to his opinions:

"...My friend S., is about to buy a farm. He has fixed upon three localities which appear alike, as respects soil, nearness of market, etc. I tell him that if other things are equal, he must go to the Post Office and let the books there decide the question. The place to settle is where he finds the most letters sent and received, and the most papers taken, especially those treating of the business of the place, for there he will find the most wide-awake enterprising people, those on the lookout for information from every possible source. There he will have the benefit of the example and experience of neighbors who are getting and putting into practice new ideas. There his boys will grow up among intelligent thinking men.... Your books, Mr. Editor, will show that I have been acting upon this idea. I have been constantly drumming it into people. Eight years ago I sent you only one name, then six, then twenty-four, then sixty-five, then ninety-eight, which comprises nearly every family of my acquaintance. I have asked no premium for these names, for I have been more than paid by seeing the awakened spirit of inquiry, the improvements going on, the better culture and management introduced. This has resulted not so much, perhaps, from following any specific instructions of your paper,

as from the indirect hints and suggestions, and the spirit of improvement awakened. I have no doubt that from this cause alone, our farms are worth ten dollars an acre more than they would be, had we had no agricultural paper,—that is, a hundred thousand dollars, on the ten thousand acres owned by your hundred readers here.—I shall keep on doing as I have, and advise every farmer to try to improve himself, his farm and his neighborhood, by acting as self-appointed agent for some reliable agricultural paper—I care not what one, if a good one."

Discussions at the Fruit Growers' Meeting

The New York Fruit Growers' Society have met regularly every Thursday at 1 P.M., during the month since our last report. We have only space for a brief report of the meeting of Oct. 15, which was large and spirited. After the ordinary routine business of examining and naming, so far as possible, the various fruits on the table, grapes were taken up. The Isabella came in for a large share of malediction. Mr. Field remarked that it never was a suitable out-door grape, and would not ripen unless it received some kind of protection. In some sheltered situations like those of Dr. Underhill on the Hudson, it did tolerably well for a few years. He instanced the attempts of various individuals, who from reports of Dr. U's success, planted from 7 to 15 acres of vineyard with this variety. In no case was it a success.

Solon Robinson was particularly severe on the Isabella. He considered that the introduction of this sort had been a great curse to grape growing, as it nearly always failed to give satisfaction. The reputed success of Dr. Underhill with the Isabella was an injury to the grape growing cause, as it operated to the great discouragement of those who planted this fruit, many of whom in their disappointment turned against the culture of all grapes. Even the grapes sent to market by the Doctor are sour enough to make a pig squeal. They were heralded the country over as superior grapes. This kept up the demand for vines, from the sale of which the Doctor made more money than from the sale of fruit.

Mr. Judd replied, if the Isabella be dead and buried, "say naught but good of the dead," the Isabella has served a good purpose; without it, during his youth, and early manhood indeed, he would have had no grapes at all. The question now was, "what shall we plant instead?" He recommended a variety ripening in succession. See List in Basket Items, page 325.

Mr. Fuller alluded to the new seedlings already out, and others soon to be offered, and said he should be somewhat cautious of seedlings from the Isabella and Catawba, as already the faults of the parents have developed themselves in the offspring. All the seedlings of the Isabella, and he considered the Adirondac as one of them, were subject to the mildew, which destroys the vitality of the leaf, and then it falls before the fruit is ripened, while the rot of the Catawba develops itself in the Diana, Anna, and other seedlings of the Catawba.

Mr. Carpenter cautioned all against planting Delawares close to a fence, as he had seen the foliage nearly burned up in such situations. He was pleased with the Anna, as out of 15 kinds, this and the Rebecca were the only sorts entirely free from rot.

Mr. Field thinks we should always be cautious about going into the extensive culture of new sorts, as Adirondac, Iona, Isabella, etc., which had been tested in but few localities, mainly by those interested in selling plants.

Mr. Pollock, of Morrisania, showed two samples of Native Wines, which were the simple juice of perfectly ripe grapes. He used most of Concord, a considerable quantity of Catawbas, and a few Isabellas, for he could get but few perfectly ripe berries of the last. The grapes are allowed to remain till over ripe, even till touched by frost; the berries are picked from the stems, mashed in a tub, covered, fermentation allowed till the skins and pulps rise in a mass to the top of the liquid. This is then drawn off, and set to ferment in barrels by itself, while the rest is subjected to pressure, and forms a less valuable sort of wine. The fermentation goes on at the lowest practicable temperature, the air being perfectly excluded. The wine showed, was of 1862 and 1848. The latter was by far the best, and of excellent character, entirely free from anything like foxiness, or the harsh acidity common to the wines of this latitude, from the above named grapes. Mr. P. has about 2,000 vines of various kinds, on a stony side hill trenched 2 feet deep, standing 2½ feet apart each way, trained to stakes, one cane only being allowed to grow. He particularly insisted upon the view that true wine cannot be made, it must grow; that is, it must be the fermented juice of ripe grapes without addition of any kind—in which he is quite right. The Isabella alone will not, in his experience, yield a wine fit to drink. The Concord yields a very good wine, but he prefers a mixture of several kinds.



A MODERN AGRICULTURAL FAIR.

Sketched and Engraved for the American Agriculturist.

Our humorous artist has fairly "taken off" not a few so-called Agricultural Fairs held during this and previous years. Any apparent exaggeration is only due to his reach of vision into the future, where the exact scene will soon be found, if things in this line go on as they have been progressing for a few years past. Time was when an Agricultural Exhibition meant a sampling of the farmer's best productions for the year, with an attendance of men and women who came to learn as well as to enjoy. Some such gatherings we have visited where instruction abounded. High bred cattle and sheep were eloquent in encouragement of enterprise and perseverance in improving farm stock; plethoric swine with melodious gruntings told of careful breeding and well filled troughs; shining samples of grain testified to the benefits of subsoiling and underdraining; and luscious fruits and gorgeous flowers discoursed poetry that all could appreciate. The influence of the scene opened every heart, social feeling had full flow, and all rejoiced in the farmers' festival. It was an evil hour that suggested the introduction of the race-track to increase the attractions of the Agricultural Exhibition. Of the additional numbers brought in, but few were of a class to render the gathering more attractive. The patronage of "horse" men and fast women but poorly repaid for the loss of the respect of the better classes, and there was a speedy falling off, both of attractiveness in the Exhibition, and of the numbers in attendance, and in many societies the annual gatherings have become disgraceful failures. In some cases the managers perceived the drift of the current in time to stay it, and we believe that without exception, where the race-track has been excluded, and proper efforts have been made to promote the legitimate ends of the exhibition, there has been continually increasing prosperity. We may instance the Exhibitions of the New-York State Agricultural Society as compared with those of her sister State, New-Jersey; the former with-

out the races, was a matter of pride to the agricultural community and of gratification to the managers; the latter in spite of the race-track (rather because of it) a failure, which we trust will never be repeated. But further comment is unnecessary: if the facts noted are insufficient to convince the managers of failing associations, of the necessity for a change of policy, we commend the above engraving to their careful study, particularly those in Connecticut who this year actually introduced an ox-race as one of the attractive features.

The New-York State Fair.

We condense the following from the copious notes of one of our editorial associates at this Fair, which opened just as the last number of the *Agriculturist* went to press:—"The exhibition as a whole has been a success, the receipts above expenses, and larger than the previous year.

IMPLEMENTS.—In some departments, the entries were below the average, though lack in quantity was made up in quality. In farm implements and general machinery, there was a creditable display. Plows, harrows, mowers, and reapers, hay spreaders, and elevators, separators, patent bee-hives, pumps, well-curbs, and various machinery for raising water, churns and cheese-vats, abounded in numerous varieties, each better than the other! The steam plow was not on hand. The horse hay-spreader, resembling somewhat a mammoth grass-hopper, attracted much attention. It has six forks worked on crooked shafts, like the arms of a man, which paddle over and over, and catching up the hay, flit it behind in a finely divided condition. This must prove a great saving of time and labor, and is a fit companion of the horse rake. A manufactory for turning out these implements, is soon to be established in central New-York.

DAIRY AND HOUSEHOLD.—In butter, and particularly cheese, the show was good. In hard-

ware, including stoves and furnaces, the articles were chiefly from Utica and neighborhood. In the domestic hall, sewing machines, silver ware, needle work, specimens of penmanship, photography, pianos, saddlery, stuffed birds, coal oil, shell work, wax work, paints, ornamental iron work, Duryea's maizena and starch, domestic wines, fans, boots and shoes were mixed up in delightful order. Here too, was a novel scene; three elderly ladies were seated on a side platform, spinning flax on ancient spinning wheels, after the manner of our grandmothers. These spinners belonged to some of the most respectable families in Saratoga County.

ANIMALS.—The show of stock, though not large, was of superior merit. Ayrshires, Durhams, Devons, Short-Horns, Herefords, and Alderneys, were well represented. The Herefords of Hon. Erastus Corning, of Albany, struck us as remarkably fine. In sheep, we observed Spanish Merinos, full blooded Silesians and their crosses, South Downs, Shropshires and Leicesters. A few Cashmere goats were exhibited. In swine and poultry, Jefferson County alone outdid the rest of the State. The horse department was never better filled, in matched and single, in trained saddle horses, stallions, and mules. One of Secretary Seward's Arabians attracted much curiosity. A noted horse-tamer, "Professor" Rockwell, drew a crowd to the track several times during the fair, by his feats of driving a team of high-spirited horses without bridle, reins, or breeching, controlling his horses solely by voice and whip.

LI FRUITS AND FLOWERS. the show was creditable, though not large. The pears, plums, nectarines, and grapes, from Ellwanger & Barry, Rochester, were a marked feature. Mr. Smith, of Syracuse, was only a little behind the former. Dr. Underhill of Croton Point, had a fine show of grapes, as did the Pleasant Valley Co. of Hammondsport, Mr. Sylvester of Lyons, Mr. Brehm of Waterloo, and others. Not to be forgotten, was the show of Adirondac grapes,

by Mr. Bailey, of Plattsburgh, not fully ripe, but considerably in advance of the Dianas, Concords, and Isabellas grown in the same garden. The quality, as judged by these specimens two thirds ripe, was very good. Several of Rogers' Hybrids were exhibited, but only one of them seemed thoroughly ripe. The floral display was below the average of State fairs. Yet the show of dahlias was excellent, and there were choice small collections of roses, verbenas, petunias, pansies, stocks, double zinnias, asters and gladioli. The indefatigable Mrs. Van Namee, of Pittstown, was on hand in full force, and contributed much to the fulness and richness of the exhibition.

DISCUSSIONS.—Each evening was devoted to the discussion of agricultural topics, at the City Hall. For the first evening, the subject was: "The most economical mode of supplying the surface soil with the mineral food of plants." For the second: "The best rotation of crops suited to the climatic conditions of the middle tier of counties in this State, on farms having at least eighty acres of good arable land." For the third evening, it was: "The best method of husbandry. The manures obtained from the method proposed, (rotation of crops, etc.,) and the best time of applying them to the several crops, the economy of the management in that respect, on the farms being the same." These subjects were discussed with spirit, and elicited many useful facts. On the whole, therefore, we put down the State Fair of 1863, as a good one.

The International Wheat Show.

The International Wheat Show held at Rochester as announced, did not bring out as large a representation from growers as the importance of the interest and liberality of the premiums, led its originators to expect. We learn from the *Genesee Farmer*, that there were but six entries for the prize of \$150 for the best 20 bushels of White Winter Wheat. The premium was equally divided between Isaac H. Anderson, of West Flamboro, C. W., and E. S. Hayward, Monroe Co., N. Y. The first exhibited a fine sample of Blue-Stem Wheat weighing 65 pounds per bushel; it was cut July 8th, and yielded 30 bushels per acre. The other parcel was a beautiful sample of Soule's Wheat. For the one hundred dollar prize for the best 20 bushels of Red Winter Wheat, but one lot was offered, by E. A. Hebard, of Canandaigua, N. Y. It was known as the Amber or White Mediterranean, was harvested July 15th, and weighed 62 lbs. per bushel. For the best two bushels of White Winter Wheat there were seven competitors, five of whom offered two-bushel samples of the same wheat as that entered for the twenty-bushel prizes. For the best two bushels of Red Winter Wheat there were three entries; and but one entry for Spring Wheat. Among the lots of White Winter Wheat offered, there was one of twenty bushels grown by Jacob Hinds, Orleans Co., N. Y. In April 1852 he received a sample of Red wheat from the Patent Office, which he thought a Spring variety, and sowed immediately in his garden. It came up and remained green until Fall, but did not head out. The next Spring it came rapidly forward, and early in July produced this white wheat.

It is to be hoped that further efforts will be made to awaken an interest among wheat growers, in the improvement of this first of staples, despite the poor success which seems to have attended the first trial. Perhaps more would enter the lists, were premiums offered previous

to putting in the crop; we should then be likely to learn something of what could be done by high cultivation.

The Fair of The American Institute.

Now that the Fair is a thing of the past, we feel disposed to indulge in a few reflections which may be considered by the managers before they attempt another Exhibition. In former days we used to visit the Annual Fair for the purpose of seeing whatever was new in the way of agricultural machines and implements, and were very sure to be gratified and instructed. This year we went to the Fair with the hope of finding something which would be of interest to our agricultural readers, but with the exception of a single model (with no one to explain it) we saw nothing novel. To be sure there were numerous agricultural implements, but they were things taken directly from the stock of dealers, and were evidently exhibited as an advertisement of their wares. Even these things would have had some interest to many, had they not been so huddled together that it was impossible to get a fair view of them. Those things which could only be judged of when in motion, were so crowded against others as to be motionless, and some articles were not even unpacked. The management excuse this crowding by saying that they had no room. After they had taken such an unsuitable building as the Academy of Music for their Fair, of course everything must be crowded and in confusion. The fruit show was in some respects fine. There were large collections from celebrated nurseries, and as an advertisement of these establishments it was good. We looked in vain for small collections of choice fruit from the hundreds of amateur cultivators around New-York. A stranger visiting the fair would suppose that we had no fruit growers in this vicinity, and that our friends from abroad had undertaken to show us what good fruit was. While we were glad to see these fine displays from cultivators living at a distance, we wondered where our own fruit growers were. The show of vegetables was remarkable—for its poverty. With the exception of a few squashes, potatoes, and onions, there was nothing that a corner grocer in his senses, would buy to retail to his customers. A lot of badly grown turnips, carrots, parsneps, and other roots made up the melancholy show of the Institute. The managers say that they had no room to enable them to invite a large collection of vegetables. If this was the case they should have made no show at all. We are glad for the sake of the exhibitors that they do not depend upon market gardening for a living. We regard this branch of horticulture as one of the greatest importance, and it is one in which every head of a family has an interest. In the vicinity of New-York, kitchen gardening is carried to great perfection, and we hold that a show of its products should be at least up to the average of what could be bought out of a New Jersey or Long Island farm wagon.

As it seems to fall mainly to the American Institute to foster the horticultural interests of this City, we hope measures will be taken another year, to bring out a fair representation of the horticultural products of this community.

HIGH PRICED SHEEP.—At the recent Exhibition of the Vermont State Agricultural Society, Mr. E. S. Stowell, of Cornwall, refused \$1400 for a ram; a farmer in Addison Co., disposed

of three rams at \$1000 each, and another individual in the same district is reported to have refused an offer of \$50,000 for his stock, 200 Merinos. We should say of this latter story as is often remarked concerning news from the South, "it lacks confirmation."

Packing Butter—Suggestions to Country Merchants.

Very large quantities of butter are received weekly in New-York, from country merchants who have taken it in barter for goods. Perhaps it would not be too much to say that the majority of butter sold at this port, for home consumption and for shipping, comes through these channels. From want of skill or of care in preparing it for market, the prices usually realized are far less than might be obtained. It is very unsatisfactory to producers to read in the published price-lists, "butter 23 to 27 cents per lb.," and then have only 15 to 20 cents offered in goods at the store; and they can not credit the statement of the merchant that he can only get that figure for what he sends to the city. Yet such is often the case, and for reasons which might be obviated, some of which are indicated in the following suggestions:—

It is unjust as well as bad policy to pay a uniform price for all butter brought in, as is customary with many dealers. No doubt it is not pleasant to tell a customer that his or her butter is worth less than some neighbor's, but if the same price be paid for all, it is in effect offering a premium on carelessness, and only a second rate article need be expected. It is essential that butter should be of uniform quality and color. To this end it should be sorted as received, and that of similar character packed together. Most of it will need working over to take out the buttermilk, which in "store butter" is usually from two to three per cent in weight. It should be put in the tubs or firkins at once, as soon as worked; and if there be not enough to fill the package, the top layer should be covered with a strong brine. When the package is full, the top should be made even and smooth, a clean piece of muslin, dipped in brine, be laid over it, and salt sprinkled on top of the cloth. The head of the firkin should not touch the butter. The actual weight of the firkin when empty should be plainly marked on the head—two pounds additional tare is allowed in this market for what the keg will soak. Nothing is gained ultimately by marking a false tare; the deception is sure to be discovered in time, and the dishonest party loses credit thereafter. The kind of vessel in which to forward butter to market, depends considerably upon distance from the city, and the time of year. Early in the season, for fresh butter intended for immediate use, or from sections near market, the half-firkin tub (the same as a firkin sawed in two), is generally preferred. Under other circumstances, kegs holding about 100 lbs. are best, and indeed these are almost always salable. For shipping abroad, or for keeping any length of time, none others will answer. The best size and shape are, 22 inches high, 16 inches diameter of bilge, and 12 inches diameter of head, outside measurement; well made of white oak, with smooth, round hickory hoops; the flat-hooped firkins of ash are not liked. No hole should be bored, nor plug put in the head or bottom. The firkins or tubs should be thoroughly soaked in brine, and the sides and bottom rubbed with fine dairy salt. Those who are receiving any considerable quan-

tity of butter, should have a cool well ventilated cellar in which to store it while awaiting a market. No fish, onions, or other strong flavored articles must be kept near it, as butter very soon absorbs any rank effluvia, and its quality is injured.

It is generally found most profitable to send butter forward regularly through the season, while it is fresh and sweet. This, however, will depend upon the rates of the price current. Western butter is the principal supply for shipment during the warm months, and it usually brings better prices then, than if held back until cold weather, when better grades are in market and Western is not so much sought after. In the Winter, store butter ordinarily sells at higher figures in the original rolls, with a clean piece of muslin wrapped around each, and nicely packed in barrels.

How to Pack Eggs for Market.

The following directions for preparing eggs for market were furnished to the *Agriculturist* by Messrs. Surfleet, Meadors & Co., Commission dealers in this city, to whom we are also indebted for some of the hints on forwarding butter, in another column. The profit of shipping eggs to market depends more upon proper packing than to any other circumstance, and it is important to know the best method:

Eggs skillfully packed are received from Ohio, Indiana, Illinois, Wisconsin and Minnesota, in good order, with but few if any broken, and sell more readily and at better prices than those from nearer, which are not so well handled. In the first place, it is a matter of great importance to procure good sound barrels, which will stand the usual hazards of transportation; those who make a business of shipping eggs have barrels made to order, strong and well hoops, rather larger than ordinary size, to hold about 75 to 80 dozen; 65 to 70 dozen is as many as can be well packed into an ordinary barrel.

Rye straw, cut into about half inch lengths, or wheat chaff, are more solid, are not so slippery, and are better than oats or any other article in which to pack. Oats as packing are objectionable for many reasons, and except in extreme hot weather, should not be used, if rye straw can be had. And even in extreme hot weather the straw would be sufficiently cool, and preferable for eggs shipped by express. Both shippers and buyers generally lose money on the oats; they are also much heavier than straw or chaff, and add considerably to the freight bill, which shippers would do well to consider; in fact those who ship largely and understand the business best, do not pack in oats. A mixture of wheat and chaff and cut rye straw is very much liked by dealers, and much used. Whatever is used should be perfectly clean and dry, to prevent spoiling the eggs by sweating.

Commence by putting two or three inches of packing in bottom of barrel; place the eggs on their sides with butt ends toward the staves and not nearer to sides of barrel than half an inch. Do not crowd them too close together, but separate by at least one eighth of an inch from each other in every direction. Sprinkle the cut straw or packing over the eggs, and rub it well into all the spaces; even off each layer with a circular piece of board or some proper leveller, made for that purpose, separating one layer from another, by about one inch of cut straw. Proceed in this manner with each layer until the barrel is full, when you heap cut straw on

the top, and while you press down the head with one hand rock the barrel backward and forward on end, which will settle the contents as much as they will be likely to. This rocking is particularly important, as the eggs settle into a position from which they will not shift during the whole journey. Fill up with packing, and press the head firmly into its place, and secure it. Be careful not to use too much power, as eggs are in that way often badly broken before leaving the shipper's hands. A lever generally acts with more force than a person thinks, and is not so good as a screw, which is more gradual in its pressure, and the effect more apparent; it also holds the head firmly in its place until fastened. A carpenter or person of any mechanical skill would know how to arrange uprights of proper height, with crossbeam and screw passing through, for this purpose.

Keep correct count and mark the actual contents plainly on the head. A good way is to first count out as many dozen as the barrel should hold, say 75 dozen into a basket or half barrel. A reputation for accurate count is greatly to the advantage of the shipper, besides saving much time and annoyance in correcting errors, and a shipper's marks soon become either favorably or unfavorably known to buyers.

It is usually advisable to make shipments by Express, especially in hot weather, as the extra cost of transportation is quite equalized by the eggs reaching market quicker, fresher, and in better condition, commanding better prices. There is no charge here for cartage on shipments by express, which of itself on small lots nearly saves the additional express charge. Always be sure that your eggs are fresh and sound when packed, as they are carefully examined here, and it is unprofitable to pay freight on rotten eggs.

Mummy Wheat.

In the *American Agriculturist* for September (page 261) we stated that no reliance could be placed on the story that wheat found in Egyptian mummy cases had been grown and the produce disseminated. In a recent number of the *Presse Scientifique des Deux Mondes* (France), is published a description of a series of experiments made by Figari-Bey, on wheat found in the ancient sepulchres of Egypt, and by him reported to the Institute of Alexandria. Two varieties of wheat were tried. The form of the grains had not been changed, but their color both within and without, had become reddish, as if they had been exposed to smoke. On being ground, they yielded a good deal of flour, but were harder than common wheat, and not very friable; the color of the flour was somewhat lighter than that of the outer envelope. Its taste was bitter and bituminous; and when thrown into fire, it emitted a slight but pungent smell. On being sown in moist ground, the grains became soft and swelled a little during the first four days; on the seventh day decomposition was apparent, and on the ninth day it was complete; no trace of germination could be discovered at any time. Both wheat and barley from several different sepulchres were tried with similar results, and the experimenter is of opinion that wheat hitherto reported as obtained from mummy wheat, had proceeded from grain accidentally contained in the mould in which the former was sown, or at any rate not from seed "more than two thousand years old."

During several years past we have from time to time received specimens of wheat, said to

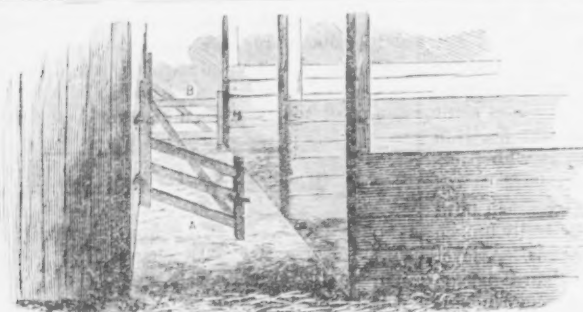
have been derived from mummies, and for which extraordinary qualities were claimed. Advertisements of such wheat have been sent to us, but of course declined, as we have no faith in any stories of the kind—manufactured as wanted.

Hints on Wheat Culture.

We gather the following from an address by Joseph Harris, Esq., of Rochester, N. Y., before the Monroe Agr. Society. He claims that wheat should continue to be the staple crop of the "Genesee Country," despite the midge, or the competition of the Great West. The remedy for the first, is found in high culture that shall make the crop sufficiently abundant to give a good yield per acre, after deducting the amount destroyed by insects; but more particularly bringing it to such early maturity that the midge has no opportunity to work among it. The Mediterranean wheat remains uninjured because of its earliness; if a white wheat ripening at the same time could be found, it would be worth millions of dollars to the country. Much has been said about the exhaustion of the soil, but as long as we can grow good crops of clover, the soil is capable of yielding good crops of wheat. So far as merely enriching the soil is concerned, it makes little difference whether we plow under the clover, or feed it to animals and apply the manure. If we plow in the clover instead of eating it off with sheep, we furnish the soil with a large amount of carbonaceous matter. But this carbonaceous matter is not needed for wheat. In fact, the wheat would usually be better without it, as it has a tendency to retard the ripening of the crop. It is probable that the immense quantity of clover which has been plowed under in Western New-York, has been one reason why the wheat crop has been injured so much by the midge.* Had the clover been eaten off the land by sheep, or made into hay and the manure returned to the land, the wheat would probably have ripened earlier and escaped the midge. It is desirable to see more wheat raised in that section during the next twenty years than at any former period, but it should be done by sowing less land instead of more. Plowing in clover has an undoubted tendency to produce an excessive growth of straw, and the use of poor manure will produce the same result. On rich land salt will check this tendency. In some experiments made recently on the farm of the Royal Agricultural Society in England, an unmanured plot of wheat produced 29 bushels per acre, and a plot dressed with 3 cwt. of common salt yielded 38½ bushels, or an increase of 9¼ bushels per acre. John Johnston of Seneca Co. thinks there is nothing better than salt for stiffening the straw. He sows a barrel per acre, just before sowing the wheat. Lime is also a splendid manure for producing plump heads of wheat and a stiff straw.

In regard to competition at the West, there need be little fear. Our soil is better adapted to wheat than most of the land in that region, and the freight is equivalent to a protective duty. In the production of beef, pork, mutton and wool the West has the advantage of us, and we shall be obliged to submit to a much keener competition in the production of these articles.

* It is doubtful whether farmers in Western N. Y. will agree with Mr. Harris. Our own experience in growing wheat in that region was decidedly in favor of turning under a good growth of clover, especially on moderately compact land. It both lightened the soil and furnished the nitrogenous elements, so useful to wheat. Let us hear from practical men.—Ed.



Method of Fastening Cattle in Stalls.

The above illustration represents a plan for confining cattle in stalls, practised by B. Hathaway, Cass Co., Mich., who writes concerning it to the *Agriculturist*: "Some years since, in constructing quarters for my cattle, after considering the different plans in vogue for stalling, or fastening, I adopted that of tying; but I have never been wholly satisfied with the arrangement, any more than have my stock. Last Winter I gave my stables an overhauling, and have constructed stalls after a new plan, differing from anything I have ever seen, and, as I think, possessing some marked advantages over stanchion or rope, in simplicity, security, and comfort.

A stable best suited to this plan should be at least fifteen feet wide. The manger would occupy three feet, leaving twelve for the stalls; and another foot would not be thrown away. The stalls are formed of a permanent partition seven feet long, and a small gate hung at the side of the barn, on a line with the partition, which when shut, will complete the stall. These gates, made light, can be opened and shut in a moment. They should be hung so that when unfastened, they will swing back out of the way. There is left a clear passage for stock, or the removal of the manure, of some five feet.

With safe fastenings for the gates, that the cattle can not open, there is the utmost security from their injuring each other, and with three and a half to four feet of width of stall, they will feel abundantly the sense of liberty and comfort.

American Sheep in Europe.

At the Wool Growers' Convention held at Rutland, during the progress of the Vermont State Fair, Col. Daniel Needham, the delegate from Vermont to the International Exhibition of Hamburg, gave an interesting account of the successful competition of Mr. George Campbell's 12 Merinos with the best flocks of Europe, mention of which was made in the September *Agriculturist*. (We glean from a report in the *New-England Farmer*.) He said it required a considerable stock of presumption and confidence to sally out from a Green Mountain home, with sheep from the pastures of Vermont, to compete against those of the imperial flocks in France and the German States; and their forebodings were not rendered less unpleasant, when, on the outward passage, they were informed by intelligent German *connoisseurs*, that for the Americans to enter into such a competition, would be simply for them to roll in the mud, as a premium for their 12 little sheep would be entirely out of the question. However, having made the venture, it was not in Yankee nature to "back down." The Committee of awards consisted of 18 gentlemen, most of them noblemen, and all thoroughly competent judges. Despite the attempt of the German Press to forestall public sentiment against

the American sheep, the sub-committee of this body agreed upon bestowing two first premiums and one second premium upon them, and this award was subsequently ratified by the unanimous action of the general Committee. Mr. N. related that the time appointed for the examination of the sheep by the Committee, was 6 A. M., and that on going to the rendezvous at two minutes past that hour, he found that every man belonging to that body had already reported himself and entered upon his respective duties—an example of punctuality worthy of universal imitation. The 12 American sheep competed against 1,761 foreign sheep, 60 of which were contributed by the Emperor of the French, and were shown in a separate and costly enclosure. At the close of the exhibition, Count Sher Thoss purchased Mr. Campbell's little flock of 12 merinoes, for \$5000.

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Salt Needed by Sheep.

An English writer, Dr. Phipson, in a Prize Essay on common salt, relates that not many years ago a German Agriculturist, Uberacker, made the following experiments to determine the influence of salt upon his sheep, which were kept on low damp pasture land: Ten animals were selected, and their usual allowance of salt withheld. In the first year five of this number died of rot and worms, while among the remainder of the flock, numbering over four hundred, only four sheep were lost. The second year a new lot of ten sheep deprived of salt, lost seven, and a short time after the close of the year, the other three of the unsalted number died; the remainder of the flock lost only five. The third year was very rainy; sixteen sheep were deprived of salt, and the whole of them died of rot and vermicular pneumonia.

Improved Hay Knife.

Mr. Wm. S. Wilson, Midlin Co., Pa., sends to the *American Agriculturist* a description of the hay knife illustrated in the accompanying engraving, which he thinks superior to those in general use. The cutting part is in fish-tail form, made of cast steel, 3-16ths inch thick, 2 inches broad at the top, tapering toward the points, and ground to an edge on the inner sides. The prongs are about 7 inches long, and spread about 6 inches at the points. The handle is a rod of 1/2 inch round iron, of convenient length, say 30 inches, neatly welded to the knife. It is bent outward at the top, to keep the hands from the edges of the hay, when cutting down a stack or mow, and furnished with a cross-piece, for convenience in handling it; or the iron rod itself may be turned to make a loop at the upper end. The horizontal bar, a short distance (about 18 inches) above the blade, is a foot-piece, by which the knife is driven into the hay with more force than could be done by the hand alone. This implement is not patented.

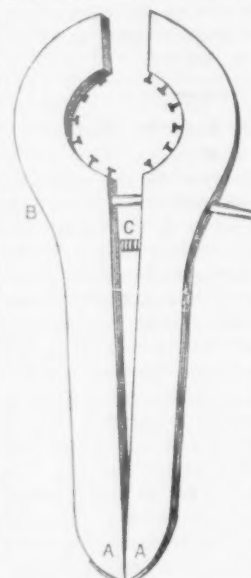


HAY KNIFE.

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Hand Corn Sheller.

Various implements for shelling corn are for sale at the agricultural warehouses, any of which are great improvements over thrashing out the grain with a flail or with horses. Where large quantities are to be got out for market, one of these to be run by horse power is almost indispensable. For those who do not require so expensive an apparatus, the implement here illustrated may be desirable. A description of it was furnished to the *Agriculturist* by Mathias Muth, Onondaga Co., N. Y. Its use will doubtless be much easier than shelling by hand over a shovel edge or the cross-bar of the half bushel measure. It is made of a strip of



CORN SHELLER.

board, about two inches wide and nine inches long, sawed lengthwise through the middle, and the two pieces shaped to the form shown in the engraving. In each of the curved openings are driven nails, such as shoemakers use for heels. The ends, A, A, are fastened together with a hinge of leather. At B, a wooden pin is inserted, passing through the two pieces. This pin is fastened at one end, and is fitted rather loosely into the hole on the opposite side-piece, so that the jaws of the implement can be opened to suit the size of the ears. A better arrangement for this purpose is, to have a metallic spring connecting the two pieces as shown at C, in which case the pin, B, is unnecessary. To use it, take the sheller in the left hand, and with the right, pass first one half of the ear through the opening, then the other half, at the same time giving it a twist; thus with two quick motions it will be speedily shelled. This is an unpatented arrangement, and can be readily made by almost any one having a few common tools.

For the American Agriculturist.

Fancy Poultry.—Some Experience.

MR. EDITOR:—Being one of those farmers who believe in progress, I went into fancy poultry, a few years ago. The huge Shanghai took my fancy particularly, for who couldn't see the profit of having hens nearly as large as sheep, and eggs in proportion? My old fashioned fowls I put into the pot, or sold to my neighbors at a sacrifice. Now, said I, we shall get on. If I don't realize the truth of the old ballad, about that speckled hen that

"Used to lay two eggs a day,
And Sundays she laid three,"

I shall at least get one egg a day from each biddy, large enough to make two of the old sort. Then the origin of these birds struck my fancy. Did they not come from the great empire of China? Did not they or their progenitors flap their wings and crow on top of the famous Chinese wall, or, less aspiring, sun themselves beside it? They were "traveled" hens surely.

And then, what an erect, military carriage! what a lordly step! For the table, what could be in better keeping than a Shanghai cock and a cup of Souchong tea? Both from the same country, they would harmonize well in the stomach, and make pleasant digestion also.

Well Sir, the high-bred birds were bought—at rather a high figure, my neighbors hinted—but I thought them cheap at any price. I confess it troubled me somewhat to see how voraciously they ate up my corn, but would it not surely come back again fourfold in mammoth eggs, and in the broods of imperial chickens?

But Sir, after a pretty fair trial of this fancy stock, I acknowledge myself a little tired of it. They are lazy, they won't scratch for a living, as my former hens did, but prefer being fed from the granary. Nor do they lay so very freely either, after all my care in feeding and nursing, and making enticing nests with glass eggs in the middle. "So much for trying to have 'blood stock,'" says my wife, who wants eggs for her puddings and cake. Nor have they proved good setters, while some of them have shown themselves bad mothers. I knew that the rascally sow would sometimes devour her squeaklings, but that the hen, the very image of maternal tenderness, should destroy her brood, was a new and sad thing to learn! One old biddy killed six chicks as soon as born, and raised only three, out of a nest of twelve eggs.

Do you, Sir, like the looks of these fowls? It grieved me at first, to wing the necks of my beautiful Polands, in order to make room for these awkward fellows; but I hoped I should learn to admire them; and if not, their utility would certainly atone for their ungainliness. But their beauty does not yet appear, nor their utility. Their huge carcasses roll and tumble about without anything like "the poetry of motion," and their feathers seem stuck on wrong end foremost. I have often wished their tails and wings were better furnished with feathers, for looks' sake; but I now remember that the man of whom I bought them said they were eminently domestic, had no filibustering propensities, would not try to fly over a fence, and could not; they preferred to stay at home in dignified retirement and be fed, and Nature had given them a plumage suited to their desires.

"Their sober wishes never learned to stray."

And then, as to their crowing, did you ever hear the like! They go it strong, but it is of the Chinese gong style of music—a most dolorous, unearthly howling, long drawn out. The editor of a paper out here, whom my cocks have disturbed with their bass solos, says: "Their crow is not the honest Saxon crow, expressive of day-break, love, war and animal spirits, but a horrid, guttural ejaculation, between a Chinese sentence, as described by missionaries, and a badly blown dinner horn." The editor is regarded here as a good judge of music.

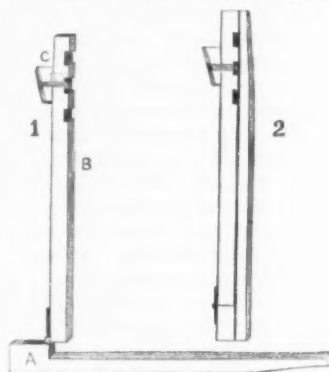
Well Sir, to cut this matter short, let me say that I am convinced that while these fowls grow to about double the size of common poultry, they have likewise double the weight of bones; that while the cost of a hundred pounds of them is more than of a hundred pounds of the old kind, they are less salable, and less inviting on the table. These "celestials" often eat their heads off before fully grown and fattened. I am satisfied that the more I raise of them, the poorer I shall be. I have seen the elephant. My poultry is for sale. CHANTICLEER.

Those who have lost faith in the celestials, and still want to raise "thorough-bred" poultry,

might try the Black Spanish, Black Poland, Irish Game, Dorking, or Dominique fowls.—Ed.

Another Wagon Jack.

A subscriber to the *Agriculturist* at Pylesville, Md., sends a sketch and description of the implement illustrated below, which he thinks superior to the one described on page 77. To make it, take a piece of hickory or white oak scantling, 2½ inches square and 28 inches long, and rip it lengthwise through the center a distance of 25 inches: saw off the shorter leg B, at this length, and join it again to A, by a strong hinge. In the



upper end and on the inside of the short leg, B, cut 4 notches, 1½ inches apart, 2 inches wide and ½ inch deep. Procure a band made of ½ inch iron, 2 inches wide and 4 or 5 inches long to fit the notches in B. A wooden wedge or key, C, is to be inserted in the band to hold it in the notch. When used, this key is to be placed under the axle, the jack being in the position shown at Fig. 1; then by raising the long leg to an upright position, as in Fig. 2, the axle and wheel will be lifted from the ground, and the apparatus will stand without fastening. We judge it will be necessary to block the forward wheels to keep the wagon in place.

A Caterpillar Burner.

Such is the title given to the apparatus here illustrated, devised by a subscriber to the *American Agriculturist* at Mount Vernon, N. Y. It consists of an inverted cone, C, made of tin or sheet iron, containing a wire grate, A. At B, small openings are made in the cone to allow a draft of air. The whole is received by a socket of suitable shape on the end of a handle of any desired length. Shavings or other light materials are burned in the cone, which is held directly under the nests, and those that drop singed or half roasted, are either completely cooked in the fire beneath, or are caught in the vessel, whence they may be emptied and crushed. Without some such provision for catching them when burning their houses, many will fall to the ground and ultimately escape. There are objections, however, to attacking caterpillars in this way; in the danger of injuring the smaller limbs with fire. We prefer a spiral brush with



which the web, caterpillars and all, may be wound up and put out of the way. An occasional examination of trees when the leaves are off, will detect the clusters of eggs from

which next year's crop is to be hatched, and their destruction will prevent their further mischief. A small premium for each cluster, offered to boys for this work, would soon clear them out.

The New Silk Worm.

Many readers of the *Agriculturist* will remember the account given in a former volume (1861, March No.) accompanied with an illustration, of a new silk worm said to have been imported into France from China, which fed upon the Ailanthus. We have made repeated efforts to obtain eggs of the insect for experiment, but thus far without success, and until recently have heard little further concerning the result of the trials made with it in Europe. In the report of the Acclimatization Society in England, we find an account of experiments made by Lady Dorothy Nevill, near Petersfield, England. One who visited the premises says, "a portion of the garden was planted with young Ailanthus trees, which were covered with a light canvas-made building, a necessary precaution against birds, which pick off the young worms. The creatures were feeding on these trees, and were really beautiful to look at—not pale-looking things like the common silk-worm, but magnificent fellows, from 2½ to 3 inches long, of an intense emerald green color, with the tubercles tipped with a gorgeous marine blue. Their feet have great adhesive power, and their bodies are covered with a fine down which turns the rain drops like the tiny hairs on the leaf of a cabbage, so that they are not injured by wind or rain. Of 500 worms placed upon the trees the previous Summer, 480 yielded cocoons. A market was found for all she could grow, a gentleman in Paris taking them for French manufacture."

The Society above named are enthusiastic in the belief that the raising of the worms can be profitably conducted in England, so that, ultimately, ladies may grow their own silk dresses in their gardens. Speculators in this country will doubtless soon be on hand with great stories, and eggs at marvelous prices, but the memory of the silk-raising and mulberry fever that found so many victims here, is yet too recent, we trust, to allow a similar mania for the new silk worm. We shall continue to watch the matter and report from time to time.

Two Queen Bees in a Hive.

R. B. Olcott, Union Co., Pa., contributes to the *American Agriculturist* an account of the following singular occurrence which he noticed in his apiary. He says: "Some time in July last, having a queen bee at my disposal, and not wishing to destroy her myself, I put her to the entrance of a late second swarm in which she readily entered. Wishing (Sept. 1st) to use this colony to raise Italian queens, I removed the queen, and in returning the combs, to my astonishment I found another queen. This puzzled me considerably, as I never noticed or heard of such a thing before. I returned the queen I had removed, and then took out the combs, leaving the two queens and part of the bees in the hive. I watched them several hours to see whether the queens would quarrel if they should meet. The bees kept a constant running about the hive, and the queens came in contact several times, but apparently did not notice each other, with the exception that at one time one took hold of the other's wing and held her for a second or so, but soon passed on. I then trans-

ferred the queens with part of the bees to an observing hive containing one comb, in order to notice their actions. When not molested, the queens moved about the comb apparently unconcerned. I kept them so for 48 hours, then returned one to the hive, and gave them an empty comb to ascertain if these queens were both fertile. This comb was soon supplied with eggs. I then removed this queen and introduced the other, but egg laying continued as before. I then returned the other queen to the hive. I have examined the colony frequently since, and always found the queens among the bees, but never on the same comb. Whether one of these queens was that which I had introduced in July, I can not say, but it appears likely. This verifies the old saying that there are exceptions to all rules. Has a similar case been noticed before? I shall endeavor if possible to winter this swarm, to ascertain if these queens will remain together a whole season.

Bees Working in Two Hives.

The following remarkable incident is related by a correspondent of the London Agricultural Gazette: "On the 20th of June this year, I hived a very large swarm of bees in a straw hive. Before they had been in it many days, they discovered an unoccupied hive about two feet distant from their own, half filled with clean, empty combs. They sagaciously took possession of it, and used it as a storehouse for honey, while combs were being constructed in their new domicile. At night they did not abandon their store-house, but left a guard of about 500 bees, who remained there contentedly, without any apparent concern at the absence of the queen. This hive was made of wood, with glass windows, so that I could examine the interior, day and night. I could see the honey in the combs, and the bees clustered between them, and coming out by hundreds to the glass, when I held a light to it at night. During the day, the bees at the mouth of the storehouse hive buzzed and ventilated, just as if the queen had been there. At dusk, some of them flew to their own home. After using the extra hive for about three weeks, the bees removed the honey from it to their permanent abode, it being no longer required for the harvest which was for the time too abundant for their accommodation at home."

Things Surprising to a Foreigner.

Mr. Harris, of the Genesee Farmer, says that when he first came from England to this country many things surprised him: "I was surprised at the excellence of American beef and the inferiority of American mutton, and I was not surprised that the beef sold for half as much again as the mutton, while in London, mutton was worth a cent a pound more than beef. I was surprised that farmers paid so little attention to their gardens. I was surprised to find so many farmers with large, handsome houses and elegantly furnished parlors that they seldom used. In England at that time, we had a window tax, and the houses there have few windows. One of the first things that struck me was the number of windows in American houses, and the great effort that was made to shut them up and exclude the glorious American sunshine and the invigorating American atmosphere. I was surprised that everywhere I went, the people thought that particular spot the most fertile, the healthiest, and the best place

on the whole Continent. I was surprised, nevertheless, that everybody was willing to sell. I was surprised at the excellence of the wheat and the inferiority of the barley. I was surprised to see the farmers so rough looking, and yet so intelligent. I was surprised to see the country ladies so much better looking than the men, and withal so interesting and fascinating. I was surprised that farmers sowed but one kind of grass-seed, and that they paid so little attention to their permanent meadows. I was surprised to see them plow so wide, and still more surprised that under the influence of our cold winters, and dry, hot summers, these wide furrows tumbled all to pieces and formed, after all, a very fair seed-bed. I was surprised that farmers raised so few peas and beans, and thought so lightly of clover-hay. I was surprised that farmers could make a living from crops of wheat of from ten to twelve bushels per acre. I was surprised to hear rotten straw called manure. I was surprised at many other things—at the great net-work of railroads—at the magnificent rivers and lakes—at the marvelous rapidity with which the country was settled, and at the enterprise and practical intelligence which has accomplished such astonishing results in so short a time. But I do not think that any one thing surprised me more than this: *the luxuriance of the clover crop in Western New-York!* I had just come from the very fountain-head of agricultural science, and from the greatest experimenting farm in the world; but never had I seen such crops of clover as I saw on many farms in this section."

The Moon Again.

A subscriber in Tuscarawas Co., O., writes: "It would please a good many of your readers, if in your next issue you would give your views as to picking apples, sowing wheat, building fence, etc., etc., during certain stages of the moon." We had supposed our views on the "moon question" were already well understood. The moon is present *above* the horizon during just about half of *every* 24 hours, though her dark side is towards us part of each month, so that we do not *see* her. The moon passing over us affects the tides regularly every day, and *if* she affects vegetation at all, the influence is as regular as the tide, and it is doubtless too small to be taken into account. A little knowledge of astronomy will dispel this moon farming. We say, plant, dig, built fences, pick apples, etc., when the soil, the season, and other things are right; the moon will do her part whether her bright or her invisible face be turned towards us.

Honey From Italian Bees.

R. B. Olcott, Union Co., Pa., in answer to questions in the Sept. *Agriculturist*, page 269, concerning the *quality* of the honey gathered by Italian Bees, writes to the following purport. He has kept them two seasons, and considers them 50 per cent more prolific than the common sort. The honey this season he thinks superior, which he says is due to the fact that in his neighborhood there was a great surplus of cherries, from which, as they decayed, the common bees gathered considerable stores, while the Italians were busy with red clover. They also worked among it while the others were among the buckwheat blossoms. He says the Italians will gather almost as much from the second crop of red clover, as is usually secured from buckwheat.

We should like to hear further evidence, particularly with regard to their ability to draw honey from red clover—a point not yet admitted.

Obstructions in Drains—Serious Difficulty

A correspondent of the N. E. Farmer, states that he has found a difficulty, thus far insuperable, in his drains becoming obstructed with a deposit from the water. The tiles were laid in a swamp, the water of which was strongly impregnated with oxide of iron. In a year or two this completely filled the tiles with a slimy incrustation which stopped the flow of water, and rendered the drain worthless. A partial remedy was found for the main drain, as follows: A cast iron box with a movable cover was substituted for a tile, at intervals of about 100 feet along the whole length of the drain. He then took 12 "Brazier's rods" (1/4 inch iron, 10 feet long), linked them together by eyes on the ends of each, first drawing the end of the rod a little smaller, so as to bend the point around the rod, to prevent it coming apart in the drain. Two lamp chimney brushes were bound together, to make a brush of proper size, and fastened with a copper wire on one end; on the other end was a swab of ball shape. Then the brush end was put into the outlet, and pushed along by means of the rod up to the first cast iron box, from that to the second, and so on the whole length of the drain, and then run back in the same manner. The water washed out obstructions as they were loosened; the ball allowed the brush to slide over any projections in the tile. This left the drain clean, and was so far satisfactory; but the laterals, he says, could not be so reached. This, however, would seem practicable by beginning at their commencement, and working along toward their entrance into the main drain.

Hints on Feeding and Fattening.

Animals destined for the shambles are disposed of to the butcher to the best advantage, if well fattened. The reason is that the flesh of a fat animal is better than that of a lean one, more delicate in flavor, tenderer, sweeter, juicier,—this aside from the value of the fat itself. A very fat animal is not in a natural condition, and on this account it is desirable that the feeding should be brought as rapidly and steadily as possible to a consummation. It is most undesirable to have any check to the steady laying on of flesh and fat; positive falling off in flesh is with sheep usually fatal to their ever fattening well. Fattening animals are peculiarly liable to certain obscure disorders, owing to the unnatural circumstances in which they are placed. Good farmers therefore exert themselves to keep stock stalled for fattening, healthy, by giving them the comfort of clean stalls, the tonic of fresh air, the increased appetite accompanying a variety or change of diet, a healthy skin secured by occasional currying, now and then a little salt as an appetizer, and to secure freedom from anxiety by quiet surroundings, regular feeding, and the kindest treatment.

In feeding swine, which are the most easily fattened of our domestic animals, great economy may be exercised by feeding very regularly, by cooking the food, by occasionally feeding raw roots in small messes as a general corrective, by feeding finely broken up charcoal now and then, or giving the hogs access to it, and securing cleanliness where they are fed in pens. It is well to remove from such hogs the inducement

to exercise in rooting, by wiring their noses.

A hard worked ox will never grow fat. The more work he does, the less will he lay on fat, the amount of food being equal; and conversely, the less he works, the more easily will he fatten. Used in a "horse-power," he may grind much corn; standing in his stall he may grind only that which he himself consumes. Labor is expended in both cases, and why may we not argue that the fattening of the animal is retarded in proportion to the amount of labor he does, and that the labor of the beast in grinding his own corn is thus a loss to the farmer. Cooked feed digests more easily than raw; that is, the stomach labors less. Do we not profit therefore in cooking the food, even of neat stock? In feeding this class of animals the moderate fermentation of hay and stalks in connection with bran or corn meal and a little salt, whereby the stalks become softened and the flavor of the meal and salt is disseminated throughout the mass, has been found a great saving. This is cooking without fuel. Steaming of fodder is extensively practised also, as is well known, with economical results where it is conducted on a sufficiently large scale and with requisite care. Sheep are best fed on raw material. Let them grind their own grists. For some reason they seem to have better health for it. The exception does not militate against the rule, but shows the necessity of watching the effect upon all animals of artificial diet and unnatural surroundings.

Cranberry Culture.

Several subscribers at the West ask us for some hints upon the cultivation of Cranberries. We have published in former volumes of the *Agriculturist* extended details upon this subject, and have now only space for the essential points.* As the cranberry grows naturally in low places, its most successful culture is practised in similar localities. Almost any bog meadow can be converted into a cranberry patch with fair prospect of success, but the most suitable place is one which is so situated that it can be flowed at will, and yet be capable of being drained so that no stagnant water will remain. The soil should be surface drained; all bushes, stumps, and tussocks removed, and the whole leveled as far as possible. The surface should be burned over to kill the grasses, and then cover the meadow with three or four inches of sand. If sand can not be obtained, it is recommended to leave the ground to the action of frosts for one Winter, after it is cleared and levelled. With regard to the vines, they may be purchased from those who already have good varieties in cultivation, or they may be selected from natural bogs where the vines bear abundantly. The cranberry, like all our wild fruits, presents considerable variety in shape and in the prolific character of the plants, and it will be useless to plant vines from an unproductive natural sort. It often happens that the finest looking plants are shy bearers; hence, where there is any doubt about getting wild vines which are good bearers, it is safer to buy of those who have reliable plants for sale. The planting may be done in October and November, or in Spring, any time until the last of May; where the land can not be flowed, spring planting is preferred. The quickest way to cover the ground is to remove sods of living plants 4 or 6

inches across, and set them out from 2 to 3 feet apart each way. As the sods are apt to contain grasses and other plants, it is much better to break them up and carefully separate the plants, which are put in hills of half a dozen each, at the distance of two feet apart. The planting is rapidly done with the hoe, the principal object being to have the roots well covered. If the planting is done in Autumn, the meadow should be flowed so as to cover the plants with a foot or more of water, which is to be kept on them until danger of spring frosts has passed; it is then gradually drawn off, taking care to leave an inch or two of water as long as there is any fear of frost. The ground should be kept clear of weeds, by the use of the hoe, until the vines spread and get in the way of cultivation; as soon as they mat and cover the ground, they will kill out all other vegetation. The principal enemies to the cranberry grower are, a worm which attacks the young fruit, and which is destroyed by flowing, and the rot, which is prevented by draining. The cranberry has been raised with more or less success on ordinary garden soils, though we are not sufficiently impressed with its practicability to recommend such culture on a large scale. A small plot may be tried as an experiment, and if successful it may be readily extended. The ground is first well pulverized and then covered with an inch or two of muck which has been exposed during the Winter, or with fine sand. The vines are put out in rows 18 inches apart, setting two or three plants together every 6 or 8 inches in the row. They should be set deep, so as to cover 3 or 4 inches of the lower part of the stems, and their growth be favored by keeping out weeds. The kinds known as Bell and Cherry are the best for upland culture, though plants may be obtained on the dry edges of a natural bog which will doubtless do well. Mr. Downing says that a piece twenty feet square will yield sufficient fruit for a family. The Cranberry cultivated in pots, is highly ornamental as a house plant, as is very well shown by a fine specimen now on our Exhibition Tables, from W. H. Starr, of New London, Ct.

A "Community Gardener."—Good Hints.

[The following communication has been sent us by an intelligent and educated gardener, who has had large experience both in this country and Europe. With the growing taste for horticulture in this country, it is quite time that gardening should be recognized as one of the necessary professions, or at least one of the useful arts, and we shall be glad if these suggestions shall help elevate those properly educated for this worthy pursuit to the social rank, which belongs to them. In Europe the scientific horticulturist is an honored member of the community. Sir William Hooker, and Sir Joseph Paxton, were both gardeners, and if we mistake not André Leroy has been knighted by the Emperor of France, in acknowledgement of his contributions to horticulture.—Ed. *Am. Agriculturist*.]

"It is frequently complained by those who have what they call a garden and no proper gardener to take care of it, that they can not secure the services of one, notwithstanding the (as they think) liberal inducements they hold out to a competent man. What is the cause of this difficulty, and how can it be remedied? First of all, it is necessary that one attempting to secure a well qualified gardener, should have employment for such a one. Next, he must be able to appreciate and to properly compensate him. In

both these respects the majority of employers are lacking. A great many want to 'hire a gardener' who have no place worth the care of a thorough gardener; either the whole concern is too small, or the 'eminent amateur' cares only for something to eat. In either case it will be difficult to find an experienced and intelligent man, who has so little ambition that he will waste his time and energies in such unsatisfactory labor as taking care of these places, or be satisfied with the generally paltry 'wages' that are paid. The demand of the employers generally is: 'I want a man of *experience and intelligence*, and one willing to put his shoulder to the wheel.' Where do they expect such men to come from? America does not produce them, nor will there be any considerable number of American gardeners until there is an entire change made in the social position of the gardener, and a discrimination made between the qualified gardener and him who is merely one in name. The profession of gardener is certainly not an inviting one to young men, when they see how most employers treat those who are engaged by them; very few employers have a friendly word for them, all consider them on a level with the coachman, their place is in the kitchen, and their pay less than any mechanic; and all this, while they are expected to have attainments which can only be found in men of a certain degree of refinement and education.

"Most gentlemen who employ a gardener are men of business, but they do not seem to consider that it requires more knowledge and mental and physical labor on the part of their gardener to properly manage their country places, than is necessary to enable any of their clerks to perform his duties. Yet socially, the clerk is usually considered to be far above the gardener. It is the social estimation in which gardeners are held, and the personal treatment they receive, that keeps young men from entering this branch of industry. It requires taste, talent, time, and money, to enable a young man to qualify himself to lay out grounds well and then properly manage them after they are laid out.

"As the demand for gardeners increases more rapidly than the supply does, or can under the existing state of affairs, I would propose the following suggestions as a partial remedy for the evil. I would advise several gentlemen living in a neighborhood to unite and engage a fully competent man as 'Community Gardener,' and give him full charge of all their grounds, etc. They would in this way secure a uniform system of management—a matter of great importance to their fruit trees, which suffer most by a frequent change of hands, or rather of heads. A man like this being secured for general superintendence, other and less capable men could be engaged to work under his directions.

"The advantages of this plan will be evident to those who have places too small to warrant them in keeping a competent gardener. In a community where there are large or small places, this having a common superintendent would not only save many vexations and disappointments, but would be much more economical than for each one to attempt to keep a gardener for himself. It would also be a great saving in the item of tools, as one set would answer for several small places; and these should belong to the community gardener, whose interest it would be to have only the best kind, and keep them in proper order for good and speedy execution. I trust that this will commend itself to those who live in parks on a plan like that of the Llewellyn Park, at North Orange, N. J."

* Those at all interested in Cranberry culture, will do well to procure one of the books on the subject, named in our book list in the advertising columns. These are not perfect works, but they are the best published as yet.



THE EMIGRANT'S FAREWELL.—FROM A PAINTING IN THE INTERNATIONAL EXHIBITION, BY CARL HUEBNER.

Engraved for the American Agriculturist.

The scene sketched above, will cause mingled feelings of pleasure and pain in thousands of hearts. However the emigrant may have prospered here in his new home, the love of Fatherland can never be extinguished. His lot there may have been among the lowliest, but thoughts of even the rudest cabin where the hours of childhood and youth were passed, will ever awaken tender emotions. Not a few of our readers may recall to mind a scene similar to the above, in their own experience. It represents the preparations of several families for departure to the New World. "In the village in the distance many peasants are dancing and carousing noisily, to drown their parting regrets or vague apprehensions. In touching contrast to these revellers, are the family in the foreground, who have come to take a farewell look at the village graveyard, that sacred spot of earth which will be remembered in the far-off home when all else in the old country is forgotten—where amid the 'rude forefathers of the hamlet,' sleep their own immediate ancestors, and perhaps in some lately-opened grave, one of its most-loved members. There is real, intense grief in the honest faces of the sturdy man and

wife, as if at some recent bereavement. The kneeling sister with her humble package, including the family bible, is less affected, but yet wears an expression of pious sympathy and sorrow. The younger members of the family look on with a heedlessness characteristic of their years and inexperience. The old granddame hobbles along to the sad spot with her stick and her bundle, as fast as her rheumatic limbs will carry her. Poor old lady! she has not much to look forward to; unless, indeed, she finds the El Dorado in her family's happiness; her sun will soon set if she ever reaches that land of the West where the sun himself goes to his nightly rest. The black wooden crosses, often covered with wreaths of 'amaranth,' which mark the spot of the humblest grave on the Continent, are suggestive features which we miss in our own places of interment for the poor." Flowers might well be added here.

While it is lamentable that governmental oppression, the existence of hereditary castes, and other defects in the social organization of Europe, make it desirable for so many of her sons and daughters to seek a new home in the West, the evil has its compensations. The emigrant, if

he worthily fills the place opened for him here, not only secures the blessings of competence for himself and family, but is aiding in developing a power that will ameliorate and finally destroy every form of despotism. America is even now a cloud upon the horizon of foreign oppressors, and hence their rejoicing in her temporary apparent humiliation. It is cheering to know that in every European country, the people, in whom is the life blood of Nations, appreciate the facts of the issue, and are giving their prayers and efforts to encourage our National government in the mighty struggle. Nor have they lost confidence in the final triumph of the right, as is shown in the remarkable increase of emigration hitherward during the past year. And we may repeat with confidence what we have heretofore stated, that there was never a better time for the poor of the Old World to emigrate to America. They will be sure of a warm reception and abundant employment at paying wages. And though it may be hard to leave loved objects behind, they may ultimately make a home here to which their children will cling with even greater tenacity, and from which no necessity shall ever force them.

For the American Agriculturist.

What Dwarf Pears to Plant.

A note from a Hartford correspondent inquires for better varieties of dwarfs to plant than the Glout Morceau, or Vicar of Winkfield. Whoever plants dwarfs, necessarily makes a venture, unless he have some neighbor who has done pioneer service for him. No one can tell beforehand just what varieties will give the best results in his soil and climate. If we had no experience or observation in our own neighborhood to draw upon, we would take the list of dwarfs recommended in Downing's Fruit Book for the best six or twelve varieties. Most fruit growers would agree in the main upon these varieties, for the list has been adopted, as the result of their experience. This experience is drawn from all the best fruit regions in the Northern States. Any one following this list, would probably get eight pears in a dozen, that would give the best results, in his own garden.

If we had an enterprising neighbor who had been planting dwarf pears, say for ten years, in soil similar to our own, we would rather take his experience for our guide, than the list recommended by Downing, if it should happen to vary in some particulars. As to better varieties than those named by our correspondent, it is not claimed by any that the Vicar of Winkfield is first rate. Col. Wilder has said, that if he could have but one pear it should be this, and we should not quarrel with him in this matter of taste. We do not claim for it that it has no superior in flavor, but, that when well grown, it is good enough for any body. In other respects it has so many good qualities, that no garden ought to be without it. The tree is a good grower on both stocks, the foliage is very beautiful, and hangs on to the last, it bears abundantly every year, the fruit is large, and may be had in good eating condition, with little difficulty, for at least ten weeks in the year. It is well known, and commands a high, though not the highest price in the market. It is adapted to a wide range of soil and climate. What we mean when we say that there are better pears than this, is, that there are those of better flavor, unless this is kept to Mid-winter.

The Glout Morceau, though of the best where it does well, has many faults. It is a late bearer at best, and with most cultivators a very capricious bearer. We have had no crop worth saving since 1858, until the present year. They are very fine this Fall, so far as our observation has extended. Yet the fruit is so good that we are not prepared to exchange it for another, even with this unfavorable experience. It is said to do much better as the tree gets age.

As better varieties for the quince stock than these, we would name the Flemish Beauty, Beurre Diel, Lawrence, Urbaniste, Beurre d'Anjou, Doyenne Boussock, Easter Beurre, and Winter Nelis. Wherever the Duchesse d'Angouleme does well, we would add it to the list. We are informed that the Duchesse does not succeed well in the vicinity of Hartford, Conn.

The true doctrine in regard to dwarf pears is this: let the amateur experiment, and all others, confine themselves to the very few, less than a dozen, varieties that are known to do well in the neighborhood, and that command a good price in the market. It is more than half with the fruit grower, to sell his crop, after he has raised it. A much better new fruit than the Bartlett, would not sell for half its price, simply because it was unknown to the public. The making of a reputation for a fruit is a very

slow process. It has taken sixty years to give the Bartlett its present general popularity. We have abiding faith in the success of dwarf pears. For small gardens, for fruit growers who cater for city markets, and want early results, they are a great institution. We saw last year a large onion garden of several acres, enriched by long cultivation, gradually changing to a dwarf pear orchard. A thousand trees had been planted for several years and the results were all that could be desired. A fortune is in store for the enterprising proprietor, for he knows what varieties to plant, and how to take care of them after planting. Select good market varieties that are known to succeed well upon the quince, plant in good soil, manure liberally with compost, half muck or peat at least, cultivate cleanly, and prune judiciously, and you can hardly fail. So thinks CONNECTICUT.

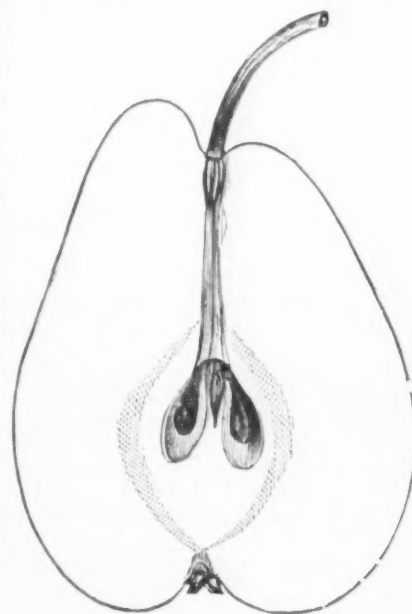
Rose Bugs Destroying Grapes.

In some localities the rose bugs are so numerous at the time certain grapes are in flower, that they destroy the entire crop by eating the blossoms. At a recent meeting of the New-York Fruit-Growers, T. W. Field alluded to this subject, remarking that the rose bugs came upon his vines in such myriads that it was impossible to destroy, or even drive them away. He said that while the Isabella and Catawba were nearly all destroyed by these pests, the Hartford Prolific and Delaware bloomed too early for them, and the Concord was but slightly affected. If this proves to be the case elsewhere, it will be well for planters to select sorts which flower before the rose bugs make their appearance.

**A New Pear—The Vanderpoel.**

Some weeks ago we received from Mrs. Mary V. Gilbert, Columbia Co., a package of pears by mail. Coming by this conveyance the fruit was very much crushed, yet as even in this condition it appeared to possess great excellence, we wrote for other samples, which came to us in a perfect state, though rather late to see the fruit in its best condition. We learn from Mrs. G. that she has been in the habit of planting the seed of superior fruit, and that this pear is

from some seed she planted in 1825. It is a good bearer, and produces annually. The two illustrations will give an accurate idea of the size and shape of the pear. The color is of a



SECTION OF VANDERPOEL PEAR

uniform lemon yellow. The flesh is melting, juicy, sweet, and without any grittiness at the core. The pear has one very desirable quality, it has not the least tendency to rot at the core; several specimens which were more or less decayed at the surface, were entirely sound at the centre. We think it a very promising fruit, and one very well worth the attention of amateurs. The name Vanderpoel was given by the lady who raised it from the seed.

Grapes—The Great Grape Show.

The exhibition of Grapes, announced to be held at the Office of the *American Agriculturist*, opened on the 1st of October. There were nearly fifty exhibitors, and as many of them showed from five to twenty varieties each, it will be seen that the display was a large one. The amount of fruit was nearly doubled after the judges had made their examination, and during the next day—a considerable number of exhibitors having been belated by other shows, and by unfortunate detention of parcels sent by express and railway. A box from Mr. Huseman of Herman, Mo., was nearly spoiled on the way. The names of the exhibitors, as well as the report of the committee of judges, will be found below. This first attempt of holding an exhibition solely of grapes was attended with most gratifying success. We do not say this on account only of the quantity of fruit contributed, but in view of its quality and variety. We doubt if there has before been such an opportunity for the public to see and compare so great a number of native grapes. That this privilege was appreciated was shown by the interested crowds who thronged the room during the closing days of the exhibition. It was particularly pleasing to observe that a large proportion of the visitors were not merely sight-seers, but persons who came to form their judgment on the different varieties, to get the opinions of the numerous cultivators there present, and to make notes for their future guidance. Most of the leading cultivators of grapes, both amateur

and commercial growers, came in from hundreds of miles around, some from the most distant West. Indeed we never saw together so many persons of good judgment and experience upon any one subject, as were gathered here on Friday. It well repaid us for the trouble and expense of the enterprise, to see the number of this class together around the tables, earnestly engaged in discussing the fruit and in a most friendly spirit. We have no doubt that the culture of the grape will receive from this exhibition an impulse, similar to that imparted to the culture of the strawberry by the shows of that fruit which have been held at the same place. One of the prominent features of the exhibition was a collection of 20 varieties from the Rev. J. Knox of Pittsburgh, Pa. It did not arrive until after the judges had made their award, but it was conceded on all hands that it was by far the finest collection in the room. The grapes did not need Mr. Knox's apology that they had been long picked and had made a long journey, for they had the freshness of recently cut fruit. Whether it was due to Mr. K.'s mode of culture, or to a peculiarity of his locality, we cannot say, but all his fruit had a bloom upon it which added much to its attractiveness.

Among the novelties of the exhibition we mention the Iona, a seedling now fairly before the public for the first time. It attracted much attention from grape growers. Dr. C. W. Grant, the originator, was awarded the first prize for seedlings. The Adirondac was presented by Mr. Bailey of Plattsburgh, N. Y., and was noticeable for the size of its berries and their fine flavor. It received the first prize for quality, by the decision of the majority of the committee. We understand that Mr. Downing dissented entirely from the verdict. If this grape proves as fine in other localities as it is in that where it originated, it will be a decided acquisition. Allen's Hybrid is another of the grapes not generally known. It was shown in fine condition by Mr. Hoag of Newburgh, N. Y. The fruit is white, and has the appearance and flavor of a foreign grape. It was generally regarded as a variety of much promise. We regret that there was not a better display of Roger's Hybrids. Only two of these were shown, Nos. 4 and 15—by Geo. Seymour & Co., of So. Norwalk, Ct. Mr. S. says that the vines grow finely and the fruit ripens with the Concord. From tasting the single specimens, we are pleased with these grapes and consider them as fruits of fair promise. The Creveling, though past its season, was shown by Mr. Mercer of Catawissa, Pa. The fruit is a fine looking, large berry, and very sweet and pleasant. It is considered by several cultivators as the best very early grape, it being a week or so in advance of the Hartford Prolific. The To Kalon is a very showy and fine variety, large in bunch and berry. We find cultivators differing with regard to its bearing qualities, and the general impression is, that it is a shy bearer. A couple of clusters of Loomis' Honey grape were shown by Peter Raabe of Philadelphia. This is a comparatively new variety. The bunches are fine, the berries large and black, and of a most remarkable sweetness. The vine is said to be hardy. It received a discretionary premium, and is worth looking after by amateurs.

Among the better known sorts we mention the Delaware first, as it was present in larger quantity than any other sort. It is faulty, that the fruit is small, but is an illustration of the adage that "the best things are always put in the smallest parcels." This defect may be in a great measure remedied by the liberal thin-

ning out of the berries. That when the vine acquires age it becomes an abundant bearer, was finely shown by a large fruiting branch contributed by Mr. R. Hale of Otego, N. Y.

The Concord was represented by many fine specimens, most of them covered with the fine bloom which belongs to this kind when well grown. This and the Delaware both have their advocates, who claim for each the first place among the grapes for the million. There are good arguments produced on each side. For ourselves we wish that "the million" had a plenty of both of them. Hartford Prolific was shown by Fuller, Knox, and others, although it was too late for this variety. The vine is a great bearer and is remarkable for the vigor of its growth and healthy character. The fault of dropping its fruit, which some complain of, is remedied by proper pruning and not allowing the vine to overbear. This and the Creveling are the best early grapes yet well disseminated.

Diana. We were much pleased with this fruit as exhibited by Mr. Brehm of Waterloo, N. Y., and by Mr. Knox. The berry is of good size, branches very compact, of a fine lilac color, and quality nearly first rate. The vine is a great bearer and needs close pruning, and is better for covering during winter.

Clinton. A rather small grape but a strong grower and abundant bearer. It is called a fine wine grape, and when thoroughly ripened, of fair quality for the table. Union Village is a most showy fruit, although it cannot take a high rank for quality. From the size of the berry and bunch it is a very valuable market grape. Herbmont is a very small grape, but the vine is very prolific; fruit very spirited in flavor, and though its size unfits it for a market fruit, it is worthy the attention of amateurs. The vine needs protection. Elsinburgh is a grape much resembling the Herbmont in appearance and has a high vinous flavor much relished by some. There were but very few specimens of the well known varieties of Isabella and Catawba exhibited. These, from their uncertainty, are being replaced in most localities by more reliable and better sorts.—The following is a list of the entries in the order in which they were received.

- No. 1.—Concord under glass: by Wm. Clark, Northampton, Mass.
- No. 2.—Seedling: "Jersey Counsellor," Wm. Plume, Newark, N. J., through C. M. Saxton, Esq.
- No. 3.—Isabella: E. Fitch, Coxsackie, N. Y.
- No. 4.—Rebecca: John Corbett, Morrisania, N. Y.
- No. 5.—Delaware, 2; Allen's Hybrid, 2; Rebecca, 2; Taylor's Bullitt, 1; Diana, 1; Concord, 1; Isabella, 1; Brinkley (foreign out-door), grown on a city lot, 60x25: Geo. W. Martin, Brooklyn, E. D.
- No. 6.—Adirondac: Jno. W. Bailey, Plattsburgh, N. Y.
- No. 7.—Iona, Allen's Hybrid, Delaware and Alexander: John Hoag, by Chas. Downing, Esq., Newburgh, N. Y.
- No. 8.—Delaware, Diana, Concord, Union Village, Elsinburgh, and Anna, from Vineyard of C. M. Beach, West Hartford, Conn.
- No. 9.—Clinton: Jno. McFarlane, New Durham, N. J.
- No. 10.—Diana, Delaware, Herbmont, Concord: Fred. Baumeister, East Newark, N. J.
- No. 11.—Clinton: E. Williams, Mount Clair, N. J.
- No. 12.—Delaware: Reuben Hale, Otego, N. Y.
- No. 13.—Rebecca, Rutland: Chas. S. Schmidt, Palisades.
- No. 14.—Catawba: W. B. Westcott, raised in city yard.
- No. 15.—Seedling: Col. D. S. Dewey, Hartford, Conn.
- No. 16.—Alvey, Concord, Wilmington White, Clinton, Taylor's Bullitt, Isabella, Delaware, Marion, Diana, North American, Rebecca, Louisa: M. Oim, gardener to Orange Judd, Flushing, L. I.
- No. 17.—Delaware, 6 bunches: B. H. Mace, Newburgh.
- No. 18.—Creveling, Isabella, Concord, Diana, Delaware, To Kalon: F. F. Mercer, Catawissa, Pa.
- No. 19.—Palestine, Syrian, Black Hamburg, Muscat of Alexandria, Zinfandel, Black Barbarossa, Reine de Nice: N. Armstrong, Bergen, N. J.
- No. 20.—2 var. Seedling: J. D. Williamson, N. Y. City.
- No. 21.—Allen's Hybrid, Canby's August, Delaware (40 bunches from 1 vine 4 years old): R. W. Holton, Schenectady, N. Y.
- No. 22.—Hartford Prolific, Diana, Clinton: W. Taft, Fordham, N. Y.

- No. 23.—Native Seedling: J. H. Foster Jr., West Newton, Pa.
- No. 24.—Delaware, 3 years old vine: E. O. Eaton, Troy.
- No. 25.—Clinton: G. H. Hite, Morrisania, N. Y.
- No. 26.—Concord, Diana, Clinton: A. G. Baldwin, Haver, N. J.
- No. 27.—Seedling, Native: Dr. C. W. Grant, Peekskill, N. Y.
- No. 28.—Seedling, from Hungarian, out-door: Mr. Pollock, Morrisania, N. Y.
- No. 29.—Grapes under Glass: S. R. Trembley, Bergen Point, N. J.
- No. 30.—10 Delaware, 10 Diana: F. C. Brehm, Waterloo, N. Y.
- No. 31.—Delaware, Iona, Union Village: C. M. Saxton, New York.
- No. 32.—Delaware, Rebecca, Alvey, Union Village: W. Brockshank, Hudson, N. Y.
- No. 33.—Diana, Herbmont, Delaware, Taylor's Bullitt, Hartford Prolific, Red Traminer, Elsinburgh, Oporto, Alvey, Anna, Miner or Venango, Clinton, Isabella, Wyile, Canby, Concord: A. S. Fuller, Brooklyn, L. I.
- No. 34.—Herbmont, Diana: C. F. Erhardt, Ravenswood.
- No. 35.—Concord: H. S. Young, Poughkeepsie, N. Y.
- No. 36.—Loomis' Honey, Maxatawny: Peter Raabe, Philadelphia, Pa.
- No. 37.—Manhattan: Isaac Buchanan, N. Y.
- No. 38.—Concord, Diana, Delaware, Herbmont, Union Village, Creveling, Canby's August, Elsinburgh, Logan, Mary Ann, Oporto, Louisa, Alvey, Hartford Prolific, Rebecca, Anna, Taylor, Catawba, Isabella: To Kalon: Rev. J. Knox, Pittsburgh, Pa.
- No. 39.—Celestial, Valentine or Wine: Dr. A. K. Underhill, Choriton, N. Y.
- No. 40.—Concord: Judge Whiting, Tubby Hook, N. Y.
- No. 41.—Ontario, Delaware: J. Dingwall, Albany, N. Y.
- No. 42.—Seedling from Isabella: Mrs. S. W. Randall, Middle Island, N. Y.
- No. 43.—Catawba: T. B. Kissam, Jersey City, N. J.
- No. 44.—Muscat, Diana, Delaware: R. Richards, Tremont, N. J.
- No. 45.—Rogers' Hybrid, No. 4, and 15: Geo. Seymour & Co., South Norwalk, Conn.

Summary.—It will be seen by the above that there were on exhibition 51 different varieties. As the samples averaged about five clusters, the total number of clusters reached about 750—a fine collection surely, when we remember that the majority were of the leading kinds now prominently before the public. It has been said that few specimens of the fruit of the Delaware have been seen. At this single exhibition there were not less than 125 clusters of this variety alone. Of the Concord there were about 60 clusters, and of the Diana some 70 clusters; Isabella 25, New Seedlings, 30 clusters.

JUDGES' REPORT.—PRIZES.

The Judges on Grapes submit the following report:
 Best Native Seedling, which has never before taken a prize, \$10, to Dr. C. W. Grant, of Iona, N. Y., for "Iona."
 Best collection of Native Grapes, \$10, to A. S. Fuller, of Brooklyn.
 Second best do., do., \$5, to M. Oim, Flushing, gardener to Orange Judd, 41 Park-Row, N. Y.
 Best six varieties of Native Grapes, \$4, to F. F. Mercer, Catawissa, Pa.
 Second best do., do., \$2, to George W. Martin, Brooklyn, E. D., N. Y.
 Best four varieties, Native Grapes, \$3, to W. Brooksbank, Hudson, N. Y.
 Second best do., do., \$2, to Fred. Baumeister, East Newark, N. J.
 Best five bunches Native Grapes of any kind, quality to rule, \$2, to J. W. Bailey, Plattsburgh, N. Y., for "Adirondac." (Mr. Downing dissenting.)
 Best five bunches Delaware, \$2, to E. O. Eaton, Troy, N. Y.
 Best five bunches Diana, \$2, to F. C. Brehm, Waterloo, N. Y.
 Best five bunches Catawba, \$2, to W. B. Westcott, New-York, (grown in City yard.)
 Best five bunches Concord, \$2, to H. S. Young, Poughkeepsie, N. Y.
 Best five bunches Hartford Prolific, \$2, to W. Taft, Fordham, N. Y.
 Best five bunches Herbmont, \$2, to C. F. Erhardt, Ravenswood, L. I.
 Best five bunches Allen's Hybrid, \$2, to John Hoag, Newburgh, N. Y.
 Discretionary Prize of \$1, to Geo. W. Martin, Brooklyn, N. Y., for Brinkley, grown out of doors.
 Discretionary Prize of \$1, to Peter Raabe, Philadelphia, Pa., for Loomis' Honey, in point of flavor.
 Discretionary Prize of \$3, to N. Armstrong, Bergen, N. J., for collection of hot-house grapes.
 None of the prizes were awarded for foreign grapes, there being no competition under the schedule. For the only lot (containing one bunch of each kind,) the Committee have recommended a discretionary prize.

With regard to Native Grapes, the Committee are much gratified, particularly with the quality of the fruit, considering the present unfavorable season, and are disposed to commend not only the design of the New-York Fruit Growers' Society, in arranging for this display, as

Interesting and instructive, but also the public spirit and enterprise of Mr. Orange Judd, Editor of the *American Agriculturist*, who placed his rooms at the disposal of the Society, and contributed the prize money and entire expense of the Exhibition.

CHAS. DOWNING, WM. CHORLTON,
D. S. DEWEY, ISAAC BUCHANAN,
JOHN DAILLEDOUZE. Committee of Judges.

Crab Apples.

Every housekeeper knows the value of this fruit for sweetmeats and jellies, though few are aware of the number of varieties now in cultivation, presenting a great difference in size and color, and all beautiful. Aside from the use of its fruit, the tree is well worth cultivating for ornament. In Spring it is covered with charming flowers, while the fruit following, remains for several months, and presents a very showy appearance. Crab apples may be grown as standards or as dwarfs, and in either case when loaded with their brilliant fruit, are most attractive objects. There is now upon the Exhibition tables of the *Agriculturist* Office a collection of crab apples from Frost & Co., of the Genesee Valley Nurseries, Rochester, N. Y., which comprises most of the old and new sorts. The largest and finest colored is the Transcendent Crab, and it is difficult to conceive of anything more beautiful than this in the way of fruit.—Most of the crabs are from the *Baccata* variety of the *Pyrus malus* or Siberian Crab, and vary from the size of a currant up to an inch or more in diameter. The "Lady Crab" does not belong to the same variety, and is not a proper crab. It is a very pretty little fruit, about one quarter the size of the common Lady Apple, and like that is an excellent dessert fruit. It makes up in numbers what it lacks in size, for the limbs are actually crowded with them.

Growth and Treatment of Gooseberries.

Geo. H. Hite, Esq., of Morrisania, a successful cultivator of the Gooseberry, sends his method to the *American Agriculturist*. As his communication is rather long, we extract the principal points of interest. Mr. Hite does not follow the usual method of training to a single stem. He plants a bush of one year's growth and allows but a single branch to grow the first year. The second year several shoots will spring up from the root, and as many of these, say 5 or 6, are allowed to grow, as will make a frame work of the bush, and all others are suppressed. He allows these limbs to grow upward, and when side branches appear on them, allows them to grow to the length of 6 or 8 inches and then nips them off to 4 inches. The terminal bud left at the pinching will start and grow a few inches, when it must be pinched back to a single leaf. The next spring he cuts back the side branches to the first pinching. All laterals (branches which spring from the main stems) must be treated in the same manner. The main stems or frame work are allowed to prolong themselves undisturbed, while the side branches are kept short, in the manner above indicated, in order to keep the bush free and open to admit light and air. Mr. Hite prevents mildew, the great obstacle to the cultivation of the foreign sorts. He puts a quart of dry unleached wood ashes into a vessel that will hold about 5 gallons, and pours upon it 3 gallons of boiling water, stirs it for a few minutes, and then fills up the vessel with cold water, the object being to have the solution as hot as the hand can bear without scald-

ing. The application is made by the hot liquid being thrown forcibly into the bush, by means of a good sized garden syringe. The work should be done thoroughly, taking care to drench every berry and every leaf, both on the under and upper side. Early morning, when the dew is on, is the best time for the purpose. The application should be first made as soon as the fruit is formed—and be continued from time to time as signs of mildew appear—until it is mature. By growing his bushes in the manner above described, and persistently syringing them with this solution, Mr. H. succeeds in obtaining the English gooseberries in great perfection. His manner of training leaves the bush open so that the liquid can reach every spot. He adds that the same liquid with the addition of a tablespoonful of sulphur, has been used by him with great success in preventing mildew upon grape vines.

What to Do with the Lantanas.

"E. P. H.," of Poughkeepsie, N. Y., furnishes for the *American Agriculturist*, his experience with this favorite plant as follows: Four years ago a white lantana in my garden seemed to be so flourishing in October, that I determined to try it as a house plant during the Winter. The furnace heat of the house allowed it to do little more than spindle out a poor existence until Spring, all my trouble having been in vain, so far as blossoms were concerned. In May I turned it out into the garden, and then came my reward; for from June until the end of Autumn it was covered with a profusion of its beautiful flowers, and the more they were cut, the greater was their number. Of course it had proved itself too valuable to be lightly discarded, and therefore, it being too large for the house, I sent it to a professional gardener to be kept through the Winter. The same plant is now in my garden, this being its fourth Summer, and it is 5 feet across horizontally in every direction, and 5 feet high. Its trunk is 4½ inches in circumference at the base, and 3 inches, at 1½ feet above the ground, and it is still constantly covered with its beautiful blossoms, which are well shown off against the deep green leaves. I have now two other Lantanas, one the common yellow and the other the deep orange colored, known to some as "the Grand Sultan," which are now in their third Summer, and also thrive equally well with the treatment given to the white. Cared for in this way, the Lantana, instead of being one of the bedding plants, to be ranked with Verbenas and Petunias, becomes a shrub or bush, not like the Weigelias, Deutzias, and Spiræas, covered for a few weeks with beautiful flowers, and then resuming its sober coat of green, but it is always in its holiday dress. Neither is the Lantana thus treated a delicate plant which must be pampered with rich soils and fed with liquid manures, but it thrives in any ordinary garden soil. Now this may be all known to the Editors of the *Agriculturist*, but it was not to me, and I know it is not to many others who will look upon the Lantana as a tolerable little plant, and allow it to die every Fall.

[The Lantana is one of our favorite bedding plants; but when grown in the manner described by our correspondent, it forms a shrub of great beauty, and will repay the trouble of taking up and keeping through the Winter. To those of our readers who do not know the Lantana, we can best describe it as a shrubby kind of verberna. It bears numerous trusses of small flowers which are shaped somewhat like

those of the verberna. There are quite a number of colors—white, cream color, yellow, purple and orange. The orange is remarkable for the change which takes place in the color of the flowers: they are of a very light orange when they first open, and gradually change to an orange red. The plants grow very readily from cuttings, and are supplied in the Spring in large quantities by the florists.—Eds.]

Bulbs in Pots.

There are no more beautiful decorations for the parlor or sitting room than Hyacinths, Crocuses, Tulips and other bulbs grown in pots. They are cultivated with great ease, and with a little care, a succession of blooms may be had throughout the Winter. The soil should be light and rich; a sandy loam enriched with well decomposed cow manure; if the loam be not light, a portion of clean sand should be added. Hyacinths are general favorites for their beauty of color and delightful fragrance. In selecting these, choose medium sized heavy bulbs of the single varieties, as these flower much more freely than the double ones. It is also desirable to get an assortment of colors in order to produce strong contrasts. If planted singly, a 5-inch pot will answer, but a much better effect is produced where three bulbs of different colors are planted together in a 7-inch pot. In potting, care should be taken to secure good drainage; place a piece of broken crock over the hole, and on this some coarse fragments of charcoal before putting in the soil. The bulbs should then be planted so as to leave just the crown uncovered. Give the pots a moderate watering, and then set them away in a warm, dark place, watering occasionally, until the earth becomes well filled with roots. The condition of the roots can be examined at any time by inverting the pot in the right hand, which is spread out over the earth; then give the rim of the pot, held in the left hand, a slight tap against the edge of a table or other hard substance. The ball of earth will be loosened and the pot may be carefully lifted off. When plenty of roots are found, the pots may be brought to a light, warm room, and with liberal watering they will soon give spikes of bloom. When the flowering is over and the leaves become yellow, the supply of water should be diminished and the bulbs dried off. When the bulbs are completely ripened, they can be removed from the earth and kept for planting the following Autumn. If not carefully ripened, it is better to plant the bulbs out of doors and take fresh ones for pot culture. By potting bulbs at intervals of a week or two, from now until Christmas, a succession of bloom can be kept up in the house through the Winter.

The little Tulip, called Duc Van Thol, which is a dwarf kind of various colors, is best adapted to pot culture. These may be planted from 3 to 12 in a pot, and treated like Hyacinths. Crocuses are much grown in pots, though the short duration of their flowers renders them less desirable than either Hyacinths or Tulips. A number of them may be planted in a pot and treated as directed above. These bulbs, especially the Hyacinths, are sometimes grown in water in glasses made for the purpose, but they are more trouble, and the bloom is seldom as fine as when in pots. They may also be grown in pure sand or in wet moss, taking care in all cases to keep the bulbs in the dark until they have formed strong roots. Narcissus, Jonquil, Iris, Snowdrop, and Scilla are readily grown in pots and are pleasing home decorations.

What Shall I Do with my Grape Vines?

This question, though not always expressed in these words, forms the burden of numerous letters which have recently been addressed to the *Agriculturist*. We cannot answer these many inquiries separately, but must make a comprehensive reply, leaving it to the intelligence of our readers to apply general principles to their particular cases. — We prefer pruning in the early part of November, to postponing it to a later season, as the cut surface has time to harden and partially heal before severe weather sets in. Those who have followed our

directions given with regard to the young vine planted last Spring, will have this Fall a single stem. This is simply to be cut back to within a foot of the ground. Next Spring, when the buds start, all but two of them are to be rubbed off, and these two allowed to grow during the next Summer, taking care to keep the stems tied to a trellis or a stake, as in fig. 1. The side branches which start are permitted to grow until they have made two or three leaves, and are then pinched back to a single leaf.

It is also well to check the growth of the stem in September, by pinching off the growing point. A vine in this condition, having two strong stems or canes in the second year of its growth, is ready to make two arms to be laid down to the trellis. If the vine is a poor grower and the new canes are too weak to form arms, they are again to be cut to a single bud each, and two new and stronger canes obtained the following year. Whenever two uprights of strong wood are obtained, they are to be cut back to three feet or four feet in length, according to the plan of training proposed. It is from these arms that the upright fruit-bearing wood is to grow. If the vine is intended to cover a trellis 6 or 8 feet high, the arms should be 3 feet long, and if the trellis is to be only 4 or 5 feet high, the arms may be 4 feet each. The next Spring the arms are to be fastened to the lower bar of the trellis, which may be built with wooden slats, on the plan of Mr. Knox, described in the April *Agriculturist*, or of wire, as directed by Mr. Fuller in the August number. The buds along the arm will all start, and all those which are not needed to form upright canes should be rubbed off, leaving buds—as far as possible upon the upper side—at 8 or 9 inches apart. In this third year of the new vine, the upright canes will be formed, which are to be tied to the trellis, and in a strong vine will bear three or four bunches each. Whichever of the two most generally employed methods of pruning is

adopted, the treatment of the vine up to this point is the same, but the future management is quite different. The mode of training and pruning adopted by Mr. Fuller and many other cultivators, is to grow the vine upon a trellis 4 feet high, and lay down the arms 4 feet in

ed from these buds which will fruit the following year. At the next Fall pruning, the old canes are cut back to two good buds, just as the others were the year before, and the new canes shortened or not, as circumstances may require. In this way of pruning, each alternate shoot is

cut back every other year to buds, only one of which is allowed to grow. The advocates of this system of pruning claim that it is better adapted to our native vines, than the one first described, as ours are such rampant growers that they will not submit to the close confinement required by that. — Whatever method of pruning is followed, the vines should be removed

from the trellis and laid down at the approach of cold weather, and in northern localities, where the Winter is very severe, covered with a layer of light soil. All varieties of grapes are benefitted by laying down, even if they are not covered. With perfectly hardy varieties, merely removing from the trellis and laying upon the ground, is all that is needed, but more tender sorts, like the Diana, require protection. They may be protected by a covering of soil, if it is not too wet, by cedar boughs, or by a few rough boards carefully laid over them.

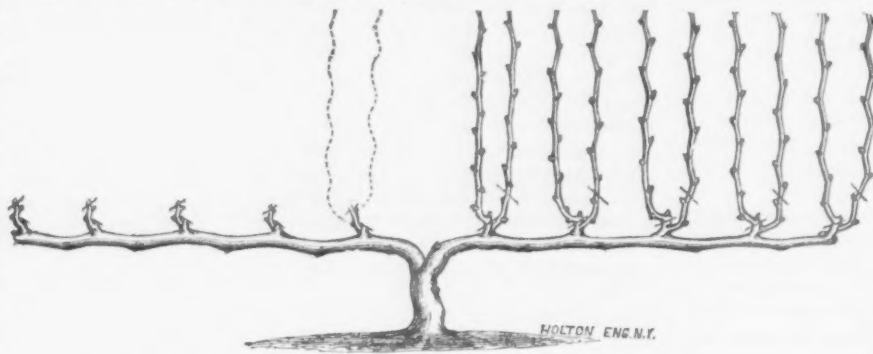


Fig. 2.—FULLER'S METHOD OF FALL PRUNING.

length each. The treatment of a vine the first Fall after the arms are laid down, and which has single canes from each bud, is to cut back all these uprights to within two buds of the arms; this will leave the vine as represented on the left-hand side of Fig. 2. The next year a cane will proceed from each of these two buds, as shown on the right-hand side of the figure; these are to be kept tied up to the trellis, and allowed that season to grow to the top, where they are pinched off. The Fall of the fourth year, one of the canes is to be cut back to two buds, and the other cut away altogether, as in figure 3; the cross lines show the place of each cutting. By following this treatment each Fall, there will always be produced two upright canes from each spur upon the arm—one of which at every Fall pruning is to be cut back to two buds, and the other one removed altogether. During the Summer, the laterals, which do not bear fruit, are pinched off to a single leaf, and the uprights should be pinched at the third or fourth leaf beyond the last bunch of fruit.

A quite different system of pruning is followed by Mr. Knox and others. The trellis is 8 feet high, and the arms are 3 feet in length; each producing 4 upright canes, which are to have the laterals or side shoots pinched off to a single leaf during the summer, and in September the end of the upright shoot should be pinched off to induce the wood to ripen. The vine in the



Fig. 3.—WHERE TO CUT.

Autumn, after the arms are laid down, will present the appearance shown in fig. 4. The pruning consists in cutting back each alternate cane to two buds only, and shortening in the others according to their strength; thus, a vigorous upright will be left to occupy the whole height of the trellis, while a weak cane is cut back to four feet, more or less. The vines will present an alternation of long canes and of short spurs, each bearing two eyes. The next Spring the long canes will throw out fruit bearing spurs, which after the fruit is set, are to be pinched off at the 3d or 4th leaf beyond the last bunch, and all other laterals stopped off. Upon the short spurs, both buds will start, and the most promising is allowed to grow while the other is removed. New canes will be form-

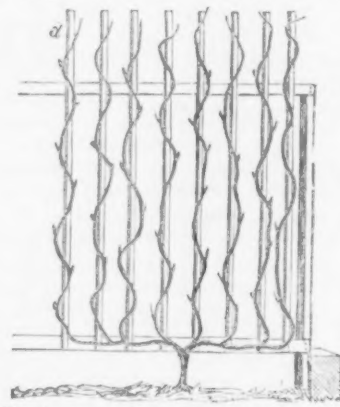


Fig. 4.—MR. KNOX'S METHOD OF TRAINING.

Advice is asked of us very frequently about pruning old and neglected vines, by those who wish to get them into a shape for proper training. As such vines differ much as to age, and have been subjected to different degrees of care, or neglect, it is very difficult to give directions without seeing each particular vine. The best way to treat an old vine is, to layer good vigorous branches and start arms from them, as directed above for young vines.

Plants Suited to House Culture.

Persons who visit a florist and buy those plants which flourish well in the green-house, are very apt to find that they droop soon after they are taken home, and if they do not die altogether, they drag out a lingering existence. The conditions of our dwellings are so different, in respect to temperature, moisture, and light, from those of the green-house, that there are but few plants that will stand the change without injury. It is much better to start cuttings out of doors during summer, for winter blooming. Plants obtained in this way will be much

hardier, and will do much better in the house, than those which have been grown in the greenhouse. We name a few readily obtained, which do well in rooms with a fair share of care.

Roses.—These are put at the head of the list as they are such general favorites. Of the China Roses, Agrippina, Sanguinea, are very good sorts; and the Indica for common monthly. Of Tea Roses; Safrano, Odorata, and some others.

Geraniums.—Rose Geranium, always admired for the fragrance of its foliage, and Tom Thumb or some other of the scarlets for flowers. The Ivy-leaved is pretty for both foliage and flowers, but it should be grown upon a trellis, or in a hanging basket, where it appears very beautiful.

Verbenas.—These make admirable window plants. They can be kept in a compact stocky form by frequently pinching off the shoots.

Petunias.—These do well, but require some care to keep them from growing too straggling.

Heliotrope.—Always desirable for its fragrance. Cuttings started during Summer will make good blooming plants for the Winter following.

Abutilon.—We consider this one of the most desirable plants for the house. It is described and figured in the September *Agriculturist*.

Cuphea.—The little *Cuphea ignea* (sometimes called *platycentra*) is a fine plant for the parlor, being always covered with its brilliant flowers.

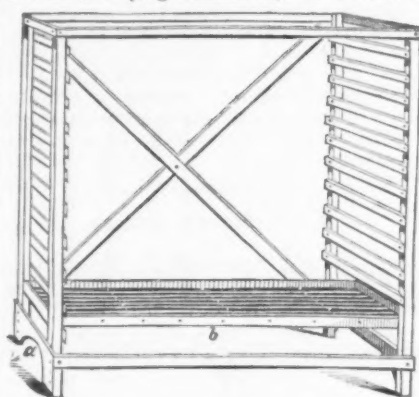
For climbers the English and Irish Ivy, and the plant called Mexican or German Ivy will give a refreshing green. These may be run up over the window on strings or wires. The Canary Bird Flower *Tropæolum peregrinum*, and other *Tropæolums*, will do well in a poor soil.

To the above list may be added: Azaleas; Hoya or Wax plant; Calla; Chinese Primroses; and Camellias. The Camellia will, however, seldom bloom in a heated room; the temperature should never be over 65°.

Hints on Drying Apples.

Apples not wanted for family use may be turned to very good account in feeding stock, but they will give much better return by carefully drying them. Although the season for gathering this fruit is mostly past, many barrels will not keep until used at home; if sent to a distant market, freight expenses would consume most of their value, and no better disposition can be made of them than to prepare them for sale in the dried state. The demand for such fruit is at present almost unlimited, and those who prepare it, may not only have the satisfaction of receiving good prices, but also of knowing that a large part of the stock will go to improve the fare of our soldiers, to whom they will be a real luxury. The work may be greatly facilitated with proper apparatus. The "turn-table" apple parer, of which several modifications are to be found at most hardware stores, is a great time and labor saver. Where the amount is small, the coring and slicing may be done with the common knife; but where large quantities are to be prepared, a circular cutter of tin to remove the core and a slicer having several blades which will finish the work at a single stroke, are desirable. At this season most of the drying must be done within doors; and if properly managed, this method is preferable at all times. A drying room may be cheaply fitted up with a stove having the pipe near the floor and extending lengthwise of the room. The frames or racks containing the fruit may be placed in tiers directly over the pipes, and the

drying done very expeditiously. The plan of a convenient drying frame is represented in the

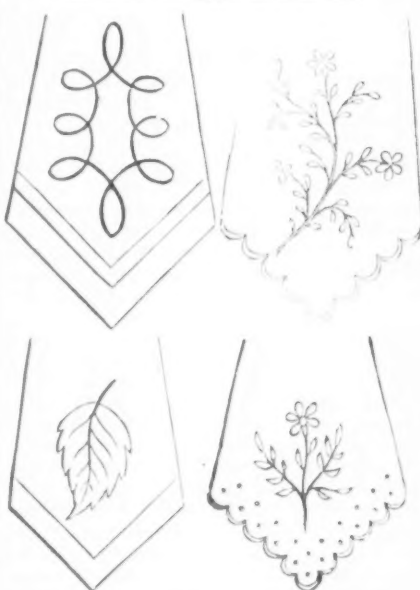


accompanying illustration, designed by one of the editors of the *Journal of Health*. The upright posts of the frame *a*, are two inches square with strips about one inch square nailed across, far enough apart to admit a rack between them, and braced with inch strips at the back, as shown in the engraving. The rack *b*, is four feet long, and about eighteen inches wide, made of common wall lath nailed on a strip at each end, about one fourth of an inch apart, or nearer if required to dry small fruits. Or they could be constructed of "galvanized" wire cloth, which would be preferable, though of course more expensive. A lath or strip of board one inch wide is nailed round the edge, to prevent the fruit falling off. These racks are slipped in upon the side supports as shown in the figure. The legs of the frame may be made sufficiently high to admit of its being placed directly over the stove pipe, from which a current of heated air will pass up among the sliced fruit, and dry it very rapidly. There should be good ventilation of the room to carry off the air as it becomes saturated with moisture. The more rapidly fruit can be dried, without exposure to high heat, the better will be its flavor and color. Drying within doors also has the advantage that flies and other insects can be excluded by mosquito netting at the windows, or openings for ventilation. One or two cents per pound over the ordinary price, which will be readily realized for nicely dried fruit, will in most cases well repay the extra cost of all the needed appliances.

Treatment of the Croup.

A "Physician's Wife," at Carrol Co., Ill., writes to the *American Agriculturist*: "Croup gives warning in advance, and woe to the mother who fails to heed that warning. Last Sunday morning the good of the sermon was lost to me by the dry hacking croup cough of a little boy in one of the front seats. As the sermon progressed the coughing grew deeper and harder, and I thought the services would never get through. A mother in front of me clutched nervously at her shawl every time the little fellow coughed, as if she would fain pull it off and wrap it around the child. There he sat with a low necked jacket on the throat, and part of the chest exposed and bare; the sight of a corpse would hardly have chilled me more. I was a stranger to the lady who sat beside him, but learned it was his mother. 'Do you know your child has got the croup?' said a woman as she came up the aisle. 'Yes, he was croupy last night,' she replied quietly. 'Why don't you tie some thing round his neck then?' said the friend, 'and if you want to save his life, give him an emetic when you get home; rub liniment on his throat and chest, and get him in a perspiration, keep him warm for a day or two and give him light diet.' The mother passed out and I

hope she followed the directions. 'Who is it?' I inquired of the friend. 'O, it's Mrs. Blank,' was the reply, 'it's not two weeks since she buried a child.' There is no disease more simple to cure than croup at its outset, inflammatory croup excepted, and no disease more baffling to physicians when allowed to proceed too far. Now is the croup harvest; one day is warm, another is cold, and in many families the winter clothes are not ready until near Christmas. This ought not to be. Mothers ought always to have some simple remedy on hand for child diseases, for with many families a doctor is so distant, and his being at home so uncertain, that sickness may have made fatal progress before he arrives. The butchering season is at hand now, and it is proverbially croupy. Fresh sausages and pork steak are too tempting for the children's appetites; and the stomach out of order, I have noticed, will bring on croup, nearly as soon as taking cold. A mother who seldom employs a doctor, said to me, 'I have never known an emetic to fail in curing croup if given in time.' It is always used in our family, and always with the same success." [See simple cough remedies in the October *Agriculturist*.—Ed.]



Designs for Ornamenting Cravats.

Miss S. R. Bowman, Philadelphia Co., Pa., contributes to the *Agriculturist* the accompanying designs for ornamenting the ends of gentlemen's silk cravats. They should be worked in fancy colored silks, crimson, blue or buff, to suit the taste and complexion. The edges of the ends may be worked with either points and dots, or finished with a hem, and stitched or chain stitched in one or two rows, with silk to match the principal design. The cravat itself is best made of plain black, either ribbon or dress silk. To our individual taste the plain neckerchief or tie, without any such addition, is more becoming to any gentleman, old or young, but fashion decides otherwise, and most young men will be in the fashion if possible. A neck tie neatly ornamented in this manner would be a very suitable present from a young lady to a gentleman, on the approaching holidays. Articles made by the hands of a friend are more highly valued than those purchased.

How to Fold a Lady's Dress.

Miss S. R. Bowman, Philadelphia Co., Pa., contributes the following directions for the *American Agriculturist*: Take the exact quarters of the dress, from the bottom of the skirt, to the sleeves, double them together with the bosom out; then on a bed, lay the skirt perfectly smooth, and begin at the bottom to fold it up, just the width of the trunk or drawer. The waist and sleeves will fold nicely to-

gether, and must be laid outside the folds of the skirt. Then double over the ends, to fit the length of the trunk or valise, and it may be carried very smoothly without taking much room. For a carpet-bag, it is better to roll it, which may be done very tightly without rumpling.

Parlors and Parlor Ornaments.

We Americans are a wonderfully utilitarian people, yet few seem to realize that there is utility in refined enjoyment. We have often alluded to the stiff, dark, shut up parlors or "best rooms", too good to use, and which, while scrupulously neat and furnished with chairs, tables, sofas, and handsome lamps or candlesticks, are so utterly lacking in attractiveness that they would be shunned by every member of the family were the blinds not closed and the curtain down, the air close and every thing kept ever in appropriate order for a funeral. A stranger shown into one of these rooms has nothing to do but twirl his fingers and wait. The blinds are turned and throw an uncertain light into the prevalent obscurity, and there is not a thing to look at but some old fashioned annuals or gift books and the family portraits perhaps. Now it requires a great deal of training to destroy in man or woman the love of the beautiful, and it is as natural for a girl to put flowers in her hair as to put cherries in her mouth; each act is done for her own enjoyment. Her staid mother regards the fruit as food and the flowers as vanity. So, gradually the natural taste and love for having beautiful things about her is educated out of the daughter of this frugal housewife and excellent mother. The guest who is not a stranger is shown into the "sitting room" or kitchen at once, and receives hospitable welcome that more than takes the place of a welcome which might be extended to the stranger, not in words, but by the pleasant surroundings of a bright, fresh, genial room, adorned with flowers, pictures, and other interesting objects, the windows of which look out upon a pleasant flower garden, grassplot, or distant hills and valleys.

If any young lady reader of the *Agriculturist* knows any such stiff, close, shut up parlor within a mile or two of her comfortable, light, sitting room, and follows our counsels, she will get up bright and early some morning, and first open the windows to see from which the pleasantest views are obtained, and then leave the blinds open and the curtains drawn, at least at the most attractive one. Then she will set the chairs at an easy angle as if somebody had been sitting so that he could cast an occasional glance at the prospect. If there is a centre table, place a few of the most attractive books, engravings, or photographs, she has upon it, and then picking some flowers, arrange them in a plate of sand and moss, or in a loose easy bouquet with pretty green leaves, and place this among the books and pictures, (don't try to make a stiff green house bouquet); or arrange both the plate and the bouquet, put the former on the table and the latter on the mantelpiece. Now she may draw up the rocking chair near to the centre table, selecting that spot from which the room, the table, and the window will all look prettiest, where also the chair itself will have an inviting, hospitable look to one entering the door. This done, let her take a seat at the window or table, imagine herself a stranger, and think how she would feel. See if the room offers not only a welcome, but attractions which will in a measure make good the lack of her own society, while she is washing her hands, taking off her apron, and making ready to receive her guest. Finally set the door open, and fasten it, if the chronic tendency to stay shut makes it swing to. This is what may be done in a parlor, without outlay either in money or labor for other adornments than those which the garden and library of every well-to-do farmer's family affords.

The outlay of a little money and the exercise of a little good taste will furnish any room with many additional attractions, without considering houseplants which add so much to the agreeableness of any apartment. The multiplication of beautiful

photographic pictures, copies of distinguished works of art, which are sold at very moderate rates, places a most elegant and interesting class of parlor ornaments within the means of almost every one. Really beautiful engravings or lithographs even, are much more expensive—and let us beseech our readers to content themselves with flowers alone, rather than make use of the cheap colored lithographs which are so apt to attract those of uncultivated taste.

Rustic Picture Frames.

Rustic work for this and other purposes is in great favor now-a-days in the fashionable world, and many and beautiful are the imitations of bark, rough wood, leaves, vines and moss upon bark and twigs of trees, etc. These are cast in bronze, zinc and iron, for picture frames and similar purposes. Papier-mache is also pressed into a multitude of rustic forms of great beauty, and the wood carvers exercise their skill in producing in oak, black walnut and butternut, devices representing rural things. With a little care in selection and skill in handling tools, we may frame our photographs and engravings and crayons with rustic work as much more beautiful than the costly products of the bronze foundry, as nature is superior to art. Oak wood denuded of the bark presents a beautifully corrugated surface, out of which the knife easily removes the few fibres which adhere, and it is ready for varnishing as soon as it is seasoned. The "season cracks" should they occur may be filled with dark brown putty and will even lighten the general effect. Natural scars, knots, spots where branches have been removed or only short spurs left, all add greatly to the ornamental effect. Pieces of suitable diameter, sawed carefully in two lengthwise, are very easily worked, matched at the corners, etc., and make strong durable frames. Wood having beautiful bark, not too rough, covered partly perhaps by close clinging lichens, is very pretty, wrought into frames in the same way, and when one once begins to make such things it is remarkable how many beautiful objects he will find ready to his hand.

Preparing for Cold Weather.

The change of temperature from the 90° of Summer to the freezing and zero points of Winter, necessitates no little preparation to secure continued health and comfort. The most important part of this work is to have the body itself in right condition. No extra amount of clothing will secure genial warmth, if the heat-producing organs in the system fail to properly perform their functions. As most readers are aware, our garments are not needed so much to keep the cold out, as to keep in the heat which arises from slow combustion of part of the food in the system. A person with vigorous digestion, active circulation, and a clean skin, will feel comfortable with an amount of clothing under which a dyspeptic or consumptive would shiver with cold. The out-door life of the farmer usually secures the right working of his heat producing apparatus, but the female portion of the community need instruction and care on this point. More out-door exercise is wanted to give tone and vigor to the system, and prepare it for any changes of weather. Some regard should be had to the character of the food, with reference to maintaining animal heat. That containing a large portion of carbon is best fitted for cold weather, as fat meat, buckwheat cakes, etc., which wisely form a large part of the staple provisions in Winter. We repeat a hint frequently given in the *American Agriculturist*, on keeping the feet warm. As they are constantly in use, perspiration is more copious there than in some other parts of the body, and hence the socks soon become damp. In that state they rapidly conduct heat away, and cold extremities and the resulting evils of "taking cold," and other derangements, often follow. The preventive is to wipe the feet dry, and change the socks during the day. Bathing the feet in cold water in the

morning and rubbing them well with a coarse towel will aid in making them less sensitive to cold. It is unwise to defer putting on thicker clothing until late in the Fall. The rapid change from warm to cooler weather in Autumn, is often more trying to the health than the severer cold of settled Winter.

In arrangements for heating dwellings, economy of fuel is worth considering, but not to the disregard of the health of the occupants. It is possible to make a room nearly air tight, and thus keep out every breath of wind that might "bring in the cold," but it would soon become unfit for occupancy. There is very generally great disregard to ventilation, especially in Winter. It is desirable to avoid cold drafts from crevices in the doors and windows, but better leave these, than not provide for the escape of the vitiated air, and the ingress of that which is pure. A ventilating flue connected with the chimney, such as was described in the *Agriculturist*, Vol. XX, p. 309, (Oct., 1861,) is well adapted for this purpose. A large sized stove is more economical and less prejudicial to health than a small one. In the latter it is necessary to keep the fire brisk, and the rapid draft carries away through the pipe a much larger proportion of the heat produced, than would escape were the fire only moderate. The stove must also often be kept nearly or quite red-hot to supply sufficient warmth, and this rapidly spoils the air for breathing. In large stoves, both these difficulties are obviated; the fuel is more slowly consumed, and a more moderate temperature is diffused from the greater surface.

Before putting up stoves and building fires for the Winter, examine all flues and be careful that no defects will allow the escape of fire to ignite surrounding wood-work, and also that there be no danger of conflagration from soot which may have collected during the previous year.

Put Water on the Stove.—Important.

This subject has been referred to in some previous volumes of the *American Agriculturist*, but is so important in respect both to health and comfort, that we refer to it again. Let the reader look a little into the science of the matter; the practical lessons to be learned, will be useful. The air acts upon water like a sponge; it sucks up and secretes more or less of the fluid, but with this difference, viz., that the warmer the air, the more water will it secrete. For illustration, take a room 12 by 15 feet and 9 feet high, which contains 1620 cubic feet of air. This amount of air at the freezing point (32° F.) will contain only 3807 grains, or a little over $\frac{1}{2}$ pint of water. Heat the air to 50°, and it will absorb 6869 grains or very nearly a full pint. Heat the air to 70° or barely to a comfortable summer warmth, and it will absorb 12,863 grains or nearly a quart of water. Heat the same air to a 100° or just above blood warmth, and it will absorb 30,975 grains, or nearly $2\frac{1}{2}$ quarts of water! That is, increasing the temperature, increases the capacity of the air to absorb water. In a cold room the air often feels damp; warm the air by a stove and it becomes dry and unpleasant—the moisture has been absorbed and hidden in the air, and the sponge-like capacity of the air draws the moisture from the skin.

On the contrary, cooling the air lessens its capacity to hold water, and it deposits the surplus. A tumbler of cold water cools the air near it, and the surplus moisture is deposited upon the outside of the glass. The window panes exposed to the outside cold, cool the adjoining air on the inside, and the moisture is deposited on the glass. The air thus cooled sinks down, more warm air takes its place, and more moisture is deposited, until the glass is dripping wet, and, perhaps, the water freezes upon the windows. A cold current of air meets a warmer one in the atmosphere, and chills it: the moisture previously concealed is thrown out in the form of vapor or clouds, and when the deposit is large, the watery particles unite and descend in rain drops. (Digging a soil, that is opening the cooler soil to admit the hot atmosphere, causes a condensation of moisture; hence the advice to hoe frequently to alleviate the effects of a severe drouth.)

The *practical lesson* now aimed at, is, that when we heat the air of a room by a stove or furnace, we make it a drying sponge, and it sucks up the air from the surface of our bodies and from the lungs, and not only produces unpleasant sensations, but injures the health, to say nothing of its drying out and cracking or warping furniture. To remedy this, there should always be an artificial supply of moisture to the air when heated by a stove or furnace. (The open chimney or grate carries off so much air, causing the introduction of fresh cool air, that the dryness is not so greatly felt.) A wide open vessel of water on a stove, partially supplies moisture. But even this is not enough for the greatest comfort and health. A cloth frequently dampened and hung on a chair or frame near the stove, is preferable. Every one must have noted the balmy effect of a few clothes hung on a frame to dry in a hot room. We heat our whole house by a hot-air furnace in the cellar, as being the most economical as well as the most convenient and comfortable method. But the warm air comes up saturated with moisture derived from a wide vessel placed within the furnace cover, just over the fire, and *always* kept supplied with water. The lack of sufficient water apparatus has caused many, otherwise good, furnaces to be thrown aside as disagreeable and unhealthy. The so-called "burned air" is simply deprived of sensible moisture. A stove-heated room may be made far more pleasant by supplying plenty of moisture.

Let Teachers, and Sextons of churches, act upon the above suggestions, and keep a spacious wide-mouthed evaporating vessel upon the stove. If this does not suffice, and at any time the pupils appear specially restless, try the hanging of a few damp handkerchiefs or garments on chairs near the stove. The effect will often be almost magical.

How to Pickle Cucumbers.

In response to several inquiries from *Agriculturist* subscribers, we publish the following directions given by Mrs. Haskell, in her Housekeepers' Encyclopedia: Cut the cucumbers from the vines without bruising the stems; lay them carefully in a basket; take them to the cellar; sort and pack them in barrels, putting different sizes in separate barrels, spread a layer of salt between each layer of cucumbers; there should be sufficient salt to entirely cover the pickles between the layers. Continue to pack the cucumbers daily as they are picked, never using any but fine cucumbers, discarding all that are crooked or of slow growth. Keep boards over the pickles, and weight to press them under the brine, which will be formed without the addition of water, with the juice extracted from the fruit by the salt. Pickles packed in this manner may be preserved for years, if there are no impurities in the salt; but if the salt is mixed with lime, they will soon soften and spoil. In two months after the barrel is filled, take them from the brine, freshen and green. To green cucumbers, prepare alum-water; put the pickles in a vat or boiler, lined with tinned copper; heat the alum-water, and pour it over the pickles. This is the process which is usually employed by pickle-makers, except that they throw steam into the vats to heat the alum-water, and if managed properly the pickles may be greened with less action of copper than when scalded in the usual method in bright brass kettles. Take the pickles from the vat when a little green, and pour over them water boiling hot. If not greened sufficiently, repeat the hot water until they are the desired color, and when cold, put them in good vinegar, let them remain until quite soured; then change to pretty strong vinegar, which will keep the pickles hard and sour; add to a barrel six large peppers, without bruising, and keep the pickles under the vinegar with weights.

To Dye with Sumach.—Miss Lizzie M. Coggeshall, Platt Co., Ill., sends the following directions in answer to the inquiry in the October *Agriculturist*: Cover the berries with water and boil them an hour. Strain off the juice and add a

tablespoonful of copperas to each three gallons of the liquid, stirring it in thoroughly while boiling hot. Wet the yarn in warm water, put it into the hot dye, and occasionally stir it up, while the yarn is taking the color. The color will be purple, and it can be made darker, by boiling the berries in an iron pot.—Another correspondent writes: "For one pail of rain water, take 6 qts. of the berries, soak them in iron 24 hours; then take them out and put in the yarn. Stir it often and keep the dye hot, but not boiling, while soaking. If you wish to color black, set it with copperas; it needs no setting unless to color black."

Meals for a Week.

Some months since a correspondent requested through the *Agriculturist* "Basket," that some one would furnish a list of meals for a week which should combine economy and good fare. Several communications have been received, of which we have space but for the following. "H., of Rahway, N. J., writes: "My living expenses being reduced since the war from \$3000 per annum, to less than the fourth part of that sum, economy is the strict rule; and I send you an account of one week's meals of our family of five (three adults and two children, one an infant). The cost is estimated a little too high, as the month just past averaged 15 cents per week less.

Breakfast.—Each morning buckwheat cakes, cold meat, tea and coffee; excepting that on Monday and Thursday, eggs are served instead of cakes.

Dinner.—Sunday, Monday and Tuesday, roast-beef, potatoes, turnips, and bread pudding—omitting the pudding on Monday. Wednesday, roast-pork, potatoes, turnips and onion sauce. Thursday the same with pancakes. Friday, corned beef, potatoes, turnips and batter pudding. Saturday, the same except bread pudding. Tea at each dinner.

Tea.—Toast, preserves, tea and coffee, and twice, fried kidneys extra.

The cost of the above meals was, say
 14 loaves of bread, 5c. each 70-10½ lbs. of beef, 8c. 84
 5 lbs. granulated sugar, 15c. 75 5 lbs. of pork, 10c. 50
 2 lbs. brown sugar, 10c. 20 2 beef kidneys, 5c. 10
 1 lb. of coffee, 38c. 38 Onions, 10
 ½ lb. of tea, 88c. 22 Syrup, 1 quart, 14
 4 lbs. of buckwheat, 16c. 64 3 doz. eggs, 20 cts. 60
 2½ lbs. of butter, 28 cts. 71 ½ lb. flour, 3
 14 pints of milk, 6c. per qt. 42 Nutmeg, yeast, salt, 25
 Total expense for the week \$6.16.

Tea we drink weak; coffee very strong. Potatoes and turnips are my own growing, and preserves made from fruit of our own raising. Beef at 8 cts. is the rump which hung for a week, roasted slowly say 2½ hours, and well basted, is equal if not superior to porterhouse roast."

Another correspondent, "C., at Andover, Mass., gives the following: "Breakfast.—Monday, toasted bread, either Graham or brown, also white bread; sauce and cheese, or broiled salt fish.—Tuesday, milk toast and doughnuts, crust coffee or cocoa shells, and boiled eggs.—Wednesday, warm biscuit and molasses gingerbread, with some slices of cold meat left from yesterday's dinner.—Thursday, hot Indian breakfast cake, cold bread, baked apples, cheese, beefsteak and baked potatoes.—Friday, griddle cakes and roasted apples, chocolate or tea, cold bread and hash.—Saturday, toast dipped in hot salted water and buttered, mashed or roasted potatoes, cold meat or boiled eggs, and doughnuts.—Sunday, fish balls, a hot breakfast cake of Graham flour or fried hasty pudding; pickles and horse-radish.

Dinners.—Monday, beefsteak, potatoes, squash, bread and butter, baked apples or sauce, and apple or squash pie.—Tuesday, roast beef, or fresh pork, boiled squash, turnips, cranberry sauce or pickles, and pie or puddings.—Wednesday, remains of yesterday's meat warmed up in the gravy, squash, turnips, potatoes, pickles or sauce, and pie or pudding. Thursday, soup made of the bone and remnants of beef or fresh pork, and bread pudding.—Friday, either veal cutlets, tripe, sausages or steak, with boiled rice or rye mush.—Saturday, salt fish, boiled carrots and beets, potatoes, drawn butter and pork,

with scraps, pickles, and boiled apple pudding.—Sunday, baked beans and Indian pudding.

"For another week's course, as dinner is the principal meal, say:—Monday, boiled corned beef, potatoes, squash, cabbage, turnips, carrots, beets, and baked rice pudding.—Tuesday, cold corned beef, with yesterday's vegetables warmed over, apple pie. Bread, butter and potatoes are of course requisite at every dinner.—Wednesday, a chowder, or fresh fish in some form, mince, apple or squash pie.—Thursday, boil a leg of mutton, or cut it into steaks and broil; serve with drawn butter or caper sauce; potatoes, squash and turnips, and pudding. Friday, make a soup of the remnants of mutton, having saved the water in which it was boiled; or chop the remnants fine and warm up in some of the broth, adding pepper, salt and butter: toast slices of bread and spread this hash upon it, break eggs into hot water, and when cooked skim them out, and lay upon the hash; this is very nice. Pie for dessert.—Saturday, ham and fried eggs, broiled steak or fried pork, fried apples and potatoes. Pie or pudding.—Sunday, steak, stewed or scalloped oysters, cranberry pie, with custard or squash pie.

Supper.—Monday, fresh cold bread, sauce or roasted apples, or preserved canned fruit with sugar sufficient to make it palatable; ginger snaps. Tuesday, hot toasted bread, simple sauce of some kind; plain cake.—Wednesday, toast, sauce, custard, and plain cake.—Thursday, cold fresh biscuit, sauce, cranberry or apple puddings.—Friday, now raised bread, cold tongue or ham, sauce and cake.—Saturday, milk toast, gingerbread, pickled salt fish. All remnants from every meal should be carefully looked after, that nothing be lost. When it is not desirable to have meat at breakfast, this bill of fare will extend over three weeks instead of two, by serving up for a second dinner what would otherwise appear on the breakfast table. By these rules a family may live well and yet inexpensively.

I give several rules for preparing soup, etc., referred to in the above bill of fare:

Dumplings for a soup.—To 1 qt. of flour, add 2 teaspoonfuls of cream of tartar, 1 of soda, salt, milk, just sufficient to wet the flour; drop this by spoonfuls into the pot of boiling soup, after having put in the potatoes, and boil three quarters of an hour, or even an hour. The soup is made by simply boiling any kind of fresh meat either cooked or uncooked, in water for 4 hours, adding three or four onions, and a carrot or two with pared potatoes; season with salt and peppers.

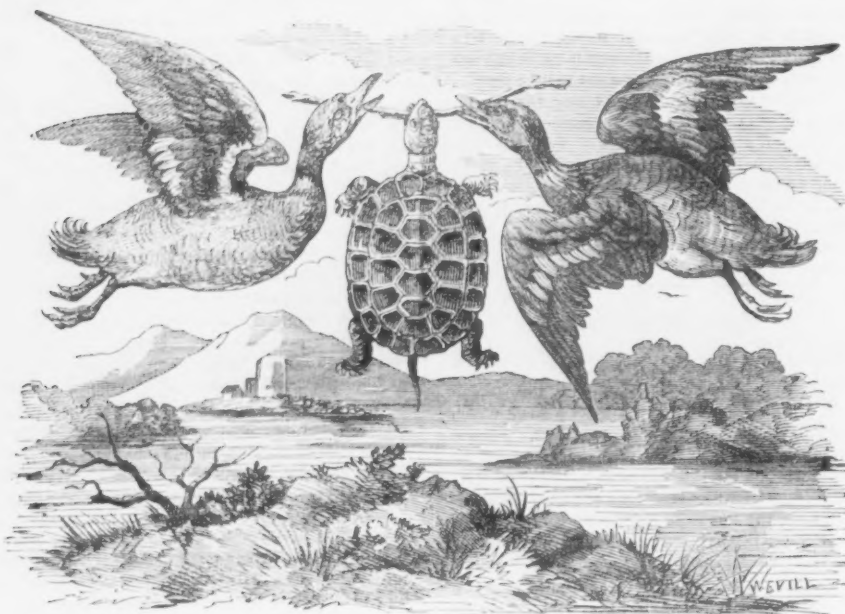
Apple Dumpling.—Butter a tin pail, and line with a paste made as for cream of tartar biscuit, with the addition of a piece of shortening as large as an egg. Mould it a little, but have the dough soft, fill the pail about two thirds full of apples, quartered. Cover with dough over the top, then put on the pail cover, and place the pail in a kettle of water, and boil three hours. Do not let the water rise so high as to boil over into the pail, and have an inverted plate or saucer in the bottom of the kettle in order that the pudding may not burn.

Cranberry Griddle Cakes.—Soak bread crumbs in milk (which should be decidedly sour) over night. In the morning mash the bread, and add a little saleratus, salt, and flour, and bake like buckwheat cakes."

Double Heeling Stockings.

Miss S. R. Bowman, Philadelphia Co., Pa. writes to the *American Agriculturist* as follows: "Soldiers very soon walk through the heels of their stockings. Now if the good ladies who knit so much, will only make fine *double heels*, in the following manner, "the boys" will probably trot up a victory in "double quick." Take two balls of yarn, and on the right side knit one stitch with one thread, and the next with the other, and so on across the needle. This alternating makes a loop on the inside, which renders the heel very thick and durable, without making it any wider. On the wrong side, take both threads together, and knit as one, in the usual way."

For other Household Hints see Basket.



Fable of an Ambitious Turtle.

What a foolish turtle! He could not be content with his beautiful swimming pond, his nice bed of rushes, and his dainty dinner of frogs and minnows. He had heard the ducks tell of the wonderful things they saw when sailing through the air, and nothing would satisfy him but enjoying the prospect for himself. So having made friends of a pair of them that built their nest near his home, he engaged them to introduce him to the upper regions in the manner you see in the picture. Cunning fellows they were, real sharpers, as you will presently find. Away they went up, up, until the poor turtle began to grow dizzy and faint, and just as he was immediately over a rocky place, he let go his hold, and down he came upon the stones, where he was dashed into a hundred pieces, and the ducks had a grand feast picking his bones. The writer saw just such a turtle a short time since—only he had two legs, and wore clothing like yours, instead of a hard shell. You would have called him a nice-looking young man, and so he was before his nose was painted with brandy. His father was a well-to-do farmer who desired to educate his son to the same profession. But the boy heard lads from the city tell of the fine times they enjoyed there, of the balls, the theaters, and other amusements they attended, and he soon despised his peaceful home, and when of age he took his own way, and came to New York to enjoy the world. He had a few hundred dollars which a relative had left him, and with this he started in business. There were plenty of friendly companions to introduce him to the theater and the gambling house, and they were not long in picking his pockets as clean as the ducks did the bones of the turtle; and when we saw him he was seeking to borrow money with which to return home. Poor fellow, let us hope that his speedy fall shook the nonsense out of him, and prepared him for a new and a right start in life. We have seen old turtles sell their farms to buy a patent right or a flourishing store, of some smooth-tongued decoy duck, with which to make their fortunes, but in almost every case they soon came down with a crash. The girls too would do well to think of the ambitious turtle, when tempted to slight the affection of their early friends, for the attention of some spruce young fop from town; if they once fall, they may scarcely hope ever to recover even their former place.

More Nice than Scientific.

A gentleman much interested in botanical matters recently directed one of the clerks at his place of business to copy a list of names for him. On looking over what had been written, he was surprised to find the word "Large-nonia." On pointing out to the young man that an error had been made, he was informed in all sincerity that it was not really incorrect, but only an improvement on the original. The word was *Rignonia*, but as *big* was rather a slang term, he had altered it to *large*, which meant the same thing, and was much more elegant!

Alexander Dumas and Mushrooms.

Once while traveling toward Lake Constance, Alexander Dumas, the noted French writer, was compelled by a storm to stop at a small hotel in Vadutry. He did not understand the language of the place, but managed to ask

for eggs, culetts, and potatoes, none of which were to be had. Remembering that the mushrooms of that country were in very high repute, he attempted to ask for a dish of them, but his language here failed him. As a last resort, he snatched a pencil and paper, and drew what he thought to be a good representation of them. "Oh, yes, yes," said the woman, and she at once started out. In five minutes she re-appeared, bringing Dumas an *open umbrella*. A second look at his sketch convinced him that she had brought what his picture most nearly resembled. Perhaps the rain then falling may have helped her imagination. (Try your skill in sketching a mushroom.)



Fable of an Aristocratic Beetle.

Our artist, who dreams with his eyes wide open, and who sketches the marvelous things he observes when in that state, says that this is a correct representation of a *sum-tug* he found among the insects. To common eyes he looked like only a fat brown beetle; but being the proprietor of a large manure heap, he was accounted very rich, and was therefore highly honored by his fellow insects. He disdained to employ his own legs for crawling, and the humble grasshopper was only too glad to earn a livelihood by wheeling his carriage, and his neighbors took off their hats and made their obeisance as he passed. We presume the artist had been rudely treated by some purse-proud and ignorant *nobody*, and his imagination was so much disturbed, that he fancied for a moment that other creatures besides men were capable of such meanness. We will leave you to make out the rest of the story, and to discover the moral. There is more in this picture, than appears at first sight. Examine it thoughtfully, and let us hear what instruction you find in it.

Impertinence Punished.

A correspondent writes to the *Agriculturist* from Wayne Co., N. Y. "Near our village lives a young Miss just blooming into womanhood, who attracts much attention by her beauty. She is a merry hearted, but sensible girl, and apparently in nowise spoiled by the many compliments she receives. Recently she greatly enjoyed the discomfiture of a young man who rather impertinently attempted to introduce himself. He had recently come from the City, and dressed in the height of fashion, was riding with a companion when he caught sight of Miss L., who was just drawing a kettle of water from a spring near the house. He exclaimed, 'what a charming creature! I must make an acquaintance,' and forthwith he stepped from his carriage, and with a very stylish bow, requested 'the privilege of drinking water drawn by such fair hands.' She started to bring a tumbler, but he insisted on drinking from the kettle, and raised it to his lips. Just then a mischievous pet sheep belonging to Miss L. came frisking around the corner behind the stranger, and without any warning, with a powerful butt sent him sprawling headforemost into the spring, kettle and all! He was not injured, but the starch was thoroughly taken out of him, as well as from his shirt bosom, and he lost no time in scrambling back to his carriage and hurrying away from the sound of Miss L's laughter."

A Formidable Weapon.

The New-Haven Palladium narrates the following: "Two drummer boys of the Tenth Connecticut Volunteers, while off duty, when Gillmore was pounding Fort Wagner, determined to discover the effect made upon the fort. They borrowed an opera glass, and went out a distance from camp to obtain a favorable site to witness operations. They had proceeded about three-quarters of a mile, when they came suddenly upon a burly rebel, who, upon sight of them, snapped his gun at them, which did not explode, the piece not being capped. One of the boys at that moment thrusting the glass into the case which hung by his side, the rebel thought he was drawing a revolver, and immediately threw down his gun, crying out 'I surrender.' The boys immediately sprang forward, seized his gun, and at a 'charge bayonet' drove the big fellow into camp. When he discovered that the only appearance of a weapon in the boys' possession was a

opera glass, he was much incensed, declaring he could not be held as a prisoner of war; but, of course, being fairly caught, his protestations were of no avail.

The Dog and the Kitten.

An instance of the intelligence of dogs is thus related by a writer in the London *Agricultural Gazette*, who vouches for its truth. The dog, a female, had a family, which were all taken away and drowned. Shortly afterward, three cats on the premises each had a litter of kittens, and these were all thrown into the water by a servant; but as he was returning, he was met by the dog, carrying in her mouth one of the kittens which she had rescued. The servant tried to take it from her, but she escaped, and for a time no one could make out where she had put it. Some hours later, at night, a mewling was heard in the far end of a large stable, and there in the corner were the three cats disputing which had the right to care for the little one. The dog sat by, looking on, and from time to time taking the kitten in her paws, and licking, and warming it.



Not Exactly a Plaything.

"O what a nice plaything!" our young friends will exclaim, on looking at the little girl in the picture seated at a tiny sewing machine. But it represents something more than a child and a toy. The "little girl" as you would call her, is Mrs. Charles S. Stratton, (Tom Thumb's wife,) and it is a very good likeness of the petite lady. The little sewing machine is a perfect one in all its parts, and can be used by its mistress to make up her family clothing. It was manufactured by Wheeler & Wilson, and is a most beautiful specimen of art. It is only 20 inches high, and 15 inches deep, cased with richly carved rosewood, inlaid with beautiful ornaments of pearl and gold, and lined with satin wood. The panels are painted with tasteful devices, fairies, cherubs, etc. On one side is a likeness of the bride arrayed as the "Goddess of Liberty," and on the other is the General, as "Young America." There is also a representation of the little bridal party with their attendants. Those who visit New York soon, may see it at the sales-room No. 505 Broadway.

How to Improve in "Composition."

To write a good "Composition" is an accomplishment usually requiring much study and long practice. Study is necessary to furnish the writer with thoughts, and practice to enable him to express them clearly, forcibly, and with elegance. One of the best aids in acquiring a good style is to read the production of some standard author, remember his thoughts, and then try to write them out. The effort should be, not to remember and repeat the language of the copy, but to express the ideas. Then compare what is written with the model, and observe the difference in arrangement, choice of words, and structure of sentences, and notice in what particulars the original excels. The most accomplished authors have practised this method and found it an excellent means of improving their own modes of expression. This suggestion has particular reference to the manner of expressing one's thoughts, which is important, as the reader is more easily interested by that which is stated with clearness and grace. But the first essential is to have something to say. A topic in which the writer himself is much interested, will usually furnish matter interesting to others; therefore the author should endeavor to be full of his subject; his success will be easier if the theme comes within the experience or observation of those for whom he writes.

Pronouncing Either and Neither.

"Vermont Boy," writes: "Will our Editor of the *Agriculturist* please tell us how to pronounce the words *either* and *neither*? We have in this town two learned ministers, one of whom says 'ee-ther,' and 'nee-ther,' and the other says 'i-ther,' and 'ni-ther.' Which is right?" *Answer.*—The general custom in this country is in favor of *ee-ther* and *nee-ther*, and the standard dictionaries give this pronunciation the preference. We noticed that in England, Scotland, and the North of Ireland, they generally say *i-ther* and *ni-ther*, while in Dublin, the common people say *a-ther* and *na-ther*. Where universal good custom does not forbid, it is best to make our language as regular as possible by following analogy, and this favors *ee-ther* and *nee-ther*, as in *conceive*, *deceive*, *receive*, *seize*, and in most other words where the *ei* is not followed by *gh* or the liquids, *l* and *n*. In these words *ei* has the sound of *a*, as in *eight*, *neigh*, *sleigh*, *weigh*, or *rein*, *skain*, *veil*, *vein*. *Analogy* would even indicate the Hibernian pronunciation of 'a-ther' and 'na-

ther,' in preference to *ee-ther* and *ni-ther*. To preserve the *analogy*, we would prefer the foreign pronunciation of *hight*, like *hate*, this being the only word we now recall, in which *ei* has not the sound of *e* or *a*, in this country.

Writing in "Cypher."

This is a method of sending communications in such a form that they can only be read by those having the key. In a former number of the *American Agriculturist* we partly explained this to our young readers. Here is a dispatch in cypher of historic interest, which was found in the coat collar of a scout intercepted by the Union soldiers, on June 30, 1863, during the memorable siege of Vicksburg, four days before the surrender.

"Ngssv lcp Rcczgpvmv Amwp oucgeeg gd vfg 46 vf kq teekigh K vgnj tekilmag amw er vfg gyykeur omocpr Jionb hyur er cjl qbfq vgnj K teccaj amw K vgnj fexgfc ow lmtag elc eryvef lpeivq tgvf elc nehr er 6' c k qd vfg qj qd lsnw—Lmuert Lmjurql, lcp Emo—Lyeimp Oguq Lspe 58v (3681)."

This was deciphered by Michael Mason of Waterhouse's Chicago Battery. The key to the cypher is, that instead of the proper letter, the second one below it in the alphabet is used for the first, third, fifth, seventh, and ninth letter of each word, as *c* for *a*, *d* for *b*, *e* for *c*, and so on. But for the second, fourth, sixth, and eighth letter of each word, the second one above is used, as *h* for *j*, *i* for *k*, *q* for *s*, etc. The same rule is followed with figures. At the end of the alphabet, suppose another alphabet to follow as *v w x y z a b c d*; and so of figures, *8 9 0 1 2 3*. With this key, the above dispatch (which is printed wrongly in all the papers we have seen) reads:

"LIEUT. GEN. PEMBERTON: Your message of the 23th is received. I will reinforce you at the earliest moment. Hold fast at all odds till I reach you. I will divide my forces and attack Grant's right and left at 4 A. M. of the 7th of July. JOSEPH JOHNSTON, GEN. COM. JACKSON, MISS., June 30th, 1863."

Gen. Johnston has doubtless adapted a new cypher ere this. Our young readers can construct others for amusement among themselves, though it will not pay to spend a great deal of time over this when you can be better employed in reading. Our only object is to make you familiar with what is a very important aid to government officers, especially military men. Here is an example on a different plan, which you can read if you get the key:

No. 55.—Ukf kryuodm ddmofg ukf bpfufsq fshlxmw-vuvju jv grs ukf gisp hdsfg bqe irvfknoe jg hoxggh ukf mluwuh grmt. Jw drtat pqmb pgt eromdm h zldm Qofdth uhmo bom zrvu ohgiput tepxu lq bqe lyl ukp ur udth jw Ukfo ximo mdh jw tpe ukqj ziv



Concealed Portraits.

Many of our young readers, and not a few of the older ones, were much amused in making out the portraits of the Bonaparte Family, contained in the picture of a bouquet, published in the *Agriculturist* some months since. We present now a somewhat different device, in which are four portraits—the French King Louis XVI. his

wife, and their two children. At first it may be a little difficult to observe them, but when once discovered, it will be almost impossible to look at the picture without seeing them. It is related that this and similar methods of preserving the likenesses of distinguished persons have been extensively practised in France, when the ruling powers have forbidden the publishing of portraits of those they considered their enemies. We have seen representations of posts turned in a lathe in such a way that the shadow falling from them showed the desired profile.

New Puzzles to be Answered.



Fig. 1.

No. 56. *Puzzle Picture.*—(Fig. 1.) How does the boy in the picture represent a musician?



Fig. 2.

No. 57. *Illustrated Rebus.*—(Fig. 2.) A well known Scripture quotation, very nearly in the words of the text.

No. 58. *Miscellaneous Questions.*—What relation is the door mat to the scraper? Which is the largest room in the world? What word of three syllables includes all the letters of the English language?

Answers to Problems and Puzzles.

No. 51. *Mathematical Problem.*—"A, B, and C, with their wives, P, Q, R, went to market to buy pigs. Each man and each woman bought as many as they gave shillings for each pig. A bought 23 pigs more than Q. B bought 11 more than P; also each man laid out for shillings more than his wife. Which two persons were in A and wife?" This problem excites so much interest that we give the best solution received—furnished by "W. C.," Jefferson Co., Ind.: Each person bought as many pigs as he or she paid shillings apiece for them, therefore the whole number of shillings that each paid is a square number. And as each man paid 63 shillings more than his wife, therefore 63 is the difference between the squares denoting what each man and his wife paid. But "the

difference between two squares is equal to the product of the sum and difference" of the two numbers from which the squares were formed. Then 63 is the product of two factors, one of which is the sum, and the other the difference of two numbers. (And the nature of the problem implies whole numbers.) Then 63 is to be resolved into two factors, one denoting the sum and the other the difference of two numbers. And first, A bought 23 pigs more than Q. Then the sum of the numbers that A and his wife bought is evidently greater than 23, and it must also be a factor of 63. It is also plain that no number greater than 23 can be a factor of 63, except the number 63 itself. Therefore 63 is one factor (the sum of A's and wife's pigs), and I must be the other factor (the difference of A's and wife's pigs). And half the amount of the sum (63) and the difference (1), is 32 the greater of the two numbers, which is A's number of pigs. And half the difference between the sum (63) and the difference (1), is 31, A's wife's number of pigs, being the less number of the two sought. Second: B bought 11 more than P. Then it is evident that B and wife bought more than 11, and the sum of the numbers that they bought must be a factor of 63. The only number greater than 11 which is also a factor of 63, is 21 (except 63 which has already been disposed of). Therefore 21 is one factor (the sum of B's and wife's pigs), and 3 must be the other factor, (the difference of B's

and wife's pigs). And as before (21+3)=24, the greater number which is B's number of pigs. And (21-3)=18 the less number, which is B's wife's number of pigs. Third, the only remaining factors of 63 are 7 and 9. And (9+7)=16, which is C's number of pigs, and (9-7)=2=1, which is C's wife's number. Fourth, A bought 23 more than Q; but A bought 32, therefore Q bought 9, and we have seen that B's wife bought 9; there

fore Q. is B's wife. And as B. bought H more than P., therefore P. bought L. and it has been shown that C's wife bought L.; therefore P. is C's wife. Finally, R., the only woman left, with her 31 pigs, must belong to A.

No. 53. *Mathematical Problem*, (October No., page 311.) Answer.—The land cost \$2,500, the fence, \$1,209; the sheep \$3,927. —No. 54. *Illustrated Riddle* (Oct. No., page 311).—Awl men (shoemakers) th in K awl men mortal (ideal man) but hems eyes; or "all men think all men mortal but themselves." The following have sent in correct answers; the numbers indicate the problems, etc., answered by each. H. S. Loper, 49; Maine Correspondent, 51; Wm. Holmes, 51; J. M. Cole, 51; Mary Hice, 51; "Nauticus," 49; "W. C.," 51; E. C. Moderwell, 51; "J. H. B., Jr.," 51; J. Ottman, 51; J. Biddle, 53.

PREMIUMS for 1864.

Or Pay to Voluntary Agents who attend to Collecting and forwarding Clubs of Subscribers to the American Agriculturist.

(Premiums open to all—No Competition.)

Owing to the greatly increased cost of everything connected with publishing, and our determination not to raise the subscription price, and not to diminish the intrinsic value of the paper, but rather to improve it, we had expected to give no premiums hereafter, excepting the Great Strawberry which will be a premium to every subscriber, and ought to be enough to secure as many subscribers as could be desired. But the previous plan has worked well, and many of those who have obtained premiums hitherto, express a strong desire to have an opportunity to get some of the higher premium articles. After looking the ground all over, and making a careful estimate, we have decided to offer one general list, as named below. Any one desiring to do so, can go to work at once, and perhaps this very month get names enough for a good premium. All names sent in now, get the great strawberry plants and the extra number. Note that five cents extra are needed when the "Agriculturist Strawberry" plants are desired, if to go by mail. This will, of course, be paid by the subscribers themselves.

The names (with money for each,) can be sent in as fast as gathered, so that the subscribers can begin to receive their papers. The premium will be paid to any one as soon as his list is completed. But, let it be distinctly noted, we can reckon for premiums ONLY those names which are marked as for Premiums, when they are sent in. Hereafter all the separate names thus sent and marked as for premiums, will be at once numbered in a special book, with the name of the sender, so that we can immediately turn to any canvasser's list, and see when it is full.

Premium clubs need not necessarily be all at one Post-Office. Each list ought to contain a fair proportion of new names, for it is to bring the paper before new subscribers, that the premiums are in part intended.

Table of Premiums for 1864.

Names of Premium Articles.

Names of Premium Articles.	Price of Article.	Names at \$1 each.	Names at \$2 each.
Good Books—See terms below.			
A—American Cyclopaedia (Appleton's New)	\$56.00	130	1250
B—Best Family Clothes Wringer	\$7.00	19	45
C—Nonpareil Washing Machine	\$16.00	40	90
D—Sewing Machine, (Wheeler & Wilson)	\$15.00	36	105
E—Sewing Machine, (Wilcox & Gibbs)	\$10.00	82	185
F—Woodruff's Mercantile Barometer	\$8.00	20	63
G—Woodruff's Mercantile Barometer	\$12.00	30	84
H—The Aquarius	\$10.00	25	67
I—Five Octave Melodeon (best)	\$50.00	170	549
J—Four Octave Melodeon (best)	\$35.00	130	424
K—Seven back Volumes Agriculturist	\$8.68	63	64
L—Six do do do	\$7.44	58	58
M—Five do do do	\$6.20	22	49
N—Four do do do	\$4.96	19	42
O—Three do do do	\$3.72	16	38
P—Two do do do	\$2.48	13	24
Q—One do do do	\$1.24	13	13
R—Jacob's Portfolio Paper File	\$1.50	17	17
S—Osborne & Hodgkinson's Pencil	\$1.50	17	17
T—Premium Cylinder Plow	\$10.00	33	78
U—Eagle Plow No. 30	\$9.25	30	69
V—Hay and Straw Cutter (best)	\$9.00	60	63
W—Steel-tooth Cultivator (best)	\$7.50	25	58
X—Family Lard and Wine Press	\$7.00	24	51

No charge is made for packing or boxing any of the articles in this Premium List. The books and the Premiums K, to S, inclusive, are delivered to any part of the United States and Territories, free of all charges. The other articles cost the recipient only the freight after leaving the manufactory of each. *NOTE*—Every article is new and of the very best make.

N. B.—Every article offered, is a good one—nothing second-hand or of poor make, or quality, or kind. We intend in all cases to deal fairly with every one, and esteem as special friends those who labor to promote the interests and circulation of this journal.

This list may perhaps be altered or amended from time to time, if circumstances or change of prices, etc., require,

but all names sent in during any month, will be reckoned at the premium rates announced for that month.

Canvassers need not choose any particular premium until they get all the names they can. To avoid confusion, please send in the exact amount with each list of names. In special cases, the whole sum for a premium list may be forwarded, and the premium be received at once—the names to be sent in afterward.

Descriptive Notes on the Premiums.

* **Books.**—Any person sending 20 or more subscribers, may select from our book list (page 351) to the amount of 10 cents for each name sent in at the club price of 80 cents, or to the amount of 30 cents for each name at \$1. (No books sent for less than 20 names). The premium books will be delivered anywhere in the United States, or to the border of the British Provinces, free of all cost, by mail or express. Many Farmers' Clubs have, by means of this premium, obtained a good library.

A—Appleton's New American Cyclopaedia.—This magnificent work is now completed, and ready for immediate delivery. It consists of 16 heavy volumes, averaging 800 large two column pages, or in the whole work, 12,804 pages! (The books fill up over a yard of shelf-room.) It is in reality a complete library of itself, embracing full information upon every topic of human knowledge, alphabetically arranged for convenient reference. The subjects discussed number over twenty-five thousand! It is hardly possible to name anything upon which pretty full information may not be readily found in the Cyclopaedia. Many who can not purchase the work may be able to obtain it through our Premium offer. It is worth a year's effort in raising subscribers, though not a few may make up a club of 130 names in a brief time.

B—Best Clothes-Wringers.—This is a most excellent Household Implement, which should be in every family. It can be set upon any form of tub, and by turning with the right hand and picking up the garments with the left, they are pressed rapidly and easily between two elastic rollers, and drop out into a basket quite as free from water as they can be wrung by the hardest twisting by hand. Every lady knows that hand wringing is really harder upon the arms and shoulders than even the washing; while the twisting stretches the fibers with lever power, and hastens the wearing out. All this is avoided by the Wringer, which is in truth a strength-saver, and a clothes-saver. We have had one of the first imperfectly made instruments in weekly use for nearly four years, and it is as good as ever, while it has paid for itself many times over. A child can with this readily wring out a tub full of clothes. Our Premium Wringers are of the family size, and of the best manufacture, and are provided with cogs, and with springs, so that they will wring equally well any article from a blanket to a baby's stocking. The Wringer weighs only 15 lbs., occupies but a small space, and can be carried by hand, sent by express, or as freight to any point, and is ready for instant use on removing the light packing box.

C—Nonpareil Washing Machine.—The best recommendation we can give of this, is, that while we have tried fifteen or twenty kinds, this is the only one that our "help" continue to use without being required to do so. It acts somewhat like the old "fulling mill;" the clothes are put into the hot water, and beat by two pounders which constantly turn them over. The beaters are moved alternately by a crank, provided with balance wheel which adjusts the force required so as to make the turning easy. Take it all in all, the Nonpareil is the best Washing Machine we have found. If we could find a better one, we should put it in our list, for anything that helps to reduce the hard work of washing day, is a godsend. The machine can go as freight, or by express to any part of the country, and we believe will give better satisfaction than any other yet brought out.

D—E—Sewing Machines.—We need not enlarge upon the benefits of Sewing Machines. They are doing more than all else to save the lives and health of females. It is no exaggeration to say that a woman can in a day do ten times as much ordinary sewing with a machine, as she can do by hand. We know many ladies who formerly employed a seamstress several weeks every year, but who now do all their family sewing, with less confinement and wear than when the common needle was their only resort. The interest on a fifty dollar Machine is only \$3 to \$4 a year, which is a small consideration compared to its advantages. Five hundred families ought to be supplied through our premium list this year. At least 80 to 100 copies of the *Agriculturist* ought to be taken in every town, and would be if some enterprising man or woman would go round and gather them. Two or three ladies might join their efforts, and get a machine for use between them. We offer two kinds of Machines, both varieties of which we have had in use for several years, and with great satisfaction. They are both supplied with the Hemmer, and are sent out with full instructions for use. —The **Wheeler & Wilson Machine**, we have used during five years, and can bear full testimony in its favor. More of these machines are sold and used, we believe, than of all the other good kinds together, which is a strong proof of the satisfaction they give. —This sews with a double thread, both sides of the fabric showing the same stitch. —The **Wilcox & Gibbs Machine**, we have used for over three years, and for most kinds of sewing it is excellent. It is very simple in its operation and can be worked by those who have the smallest amount of mechanical skill. It can be used for most kinds of sewing, and may well be adopted generally, at least where the higher priced machines can not be afforded. We know many who prefer this to any other. —For every kind of sewing, especially where the same stitch is required on both sides, we prefer the Wheeler & Wilson.

F—G—Woodruff Mercantile Barometer.—This is conceded to be the best and cheapest instrument for general use, which is now offered to the public. The peculiar form of mercury cup invented by Mr. Woodruff, renders the instrument far more portable than any thing previously made. The safe delivery of every instrument given by us as a premium, is warranted by the manufacturer (Charles Wilder, Peterboro, N. H.), when to be sent within 1,500 miles. The instruments are beautifully made, are about 3 feet long, and are sent direct from the factory, with no expense save the express charges which vary from 50 cts. to \$1.50, according to the distance. We offer two forms which differ mainly in the style of case, both being supplied with *Thermometer* and *Vernier*. The \$12 form is of course more ornamental, and the more desirable instrument, though either of them is highly valuable. A barometer is to farmers or others on land, what it is to sailors at sea—an indicator of the weather to be looked for. There are many times every year when the indications of the barometer in regard to the weather, will often be of more value than its whole price, while the interest on its cost would be less than half a dollar a year. The habit of observation, and of scientific study cultivated in a family of children where a Barometer is used, is a valuable consideration.

H—The Aquarius.—This is an excellent little portable force-pump, useful in many ways. One can take this instrument in his hand with a pail of water, and throw a considerable stream to any point where a fire may be breaking out, and do more to quench it, than he could with a dozen pailfuls dashed on, even if the fire could be reached. We have thrown water from the ground up against the third story windows of a house. The Aquarius is very useful for watering gardens, for washing windows, carriages, etc., etc. It is provided with rubber suction pipe, to draw water from a pail, tub or bucket, and an ejection pipe having both a nozzle for throwing a stream, and a rose or sprinkler. It has also an air chamber for giving a constant stream. It is a handy instrument, for every household, aside from its benefit as a fire engine with which many an incipient fire has been subdued.

I—J—Melodeons.—None need to be told of the pleasure given by a good Melodeon in a household, or of its utility in the Week Day and Sabbath School Room, and the Church. "Music hath charms to soothe the savage breast," and we hesitate not to say that a benign influence is exerted upon every house and school room where a Melodeon or other good musical instrument is found. —We offer two sizes in our list above, and those of a different price may be selected for a proportionate number of subscribers. (For sizes, style, prices, etc., send a stamp to George A. Prince & Co., Buffalo, N. Y., and get one of their illustrated descriptive Catalogues, which will be sent free). We have used one of these Melodeons during four years past, and it continues to give the highest satisfaction. It has not been tuned or otherwise repaired in all that time. The premium instruments will be shipped direct from the manufacturers at Buffalo, ready boxed. They can go by railroad, steamboat, express or otherwise, as desired by the recipient. *NOTE*—It will be an easy matter for Churches, and both Week Day and Sunday Schools to unite their efforts and secure an instrument for the public use.—Many have done so already.

K—Q—Seven Volumes of the Agriculturist.—Here is a whole *Agricultural, Horticultural, and Household Library*, embracing also a large amount of interesting reading for Children and Youth, and thousands of instructive and pleasing engravings. Each volume contains more printed matter than half a dozen dollar books of the usual size. There are in each volume from one to two thousand articles and condensed items, among which every reader will find something useful to himself and family. We send them post-paid (as in the above table,) in new clean numbers, printed from stereotype plates as needed. The last number of each volume contains an index to the whole volume. (Any person preferring them bound, can receive them in this form, neatly done, at an expense of 65 cents per volume, for the cost of binding, and extra postage required when mailed in this form—or if called for at the office, or sent by express, or otherwise, if not to be pre-paid, at a cost of only 25 cents per volume.) Let every one selecting this premium be sure to name what volumes are desired, or how many of each, as duplicates of any number can be chosen if preferred.—We can only supply from volume 16 to volume 22 inclusive. The previous volumes are not stereotyped.

R—Best File for the Agriculturist.—Jacob's Portfolio file, made just to fit the *Agriculturist*, with the name of the paper, glued on, is exceedingly convenient. It is a neatly embossed or stamped cover, made so that each successive number of the paper can be inserted in a minute, when it is strongly held in. The numbers thus fastened together are as convenient as a bound book. When one volume is completed, it can be removed and stitched together, and the numbers of a new volume be inserted. A single cover will answer for a dozen or twenty successive years. It is without doubt the most perfect paper file yet made. It is sent post-paid, as above.

S—Water Color Paints.—Those offered (Osborne & Hodgkinson's) are the best of American Manufacture, and though not so fine for artist's work, as some of the imported (which now sell at six times the price), they answer very well for common sketching, particularly by children and beginners. They are especially useful to children, as their use tends to develop a taste for form and color, and skill in the use of the pencil. We send them post-paid, in a neat mahogany case containing 21 small cakes of assorted colors, with brushes, etc.

T—U—Premium Plows.—The two named in the table above (*Cylinder* and *Eagle No. 30*) are two of the best farm plows in use, and will doubtless give ample satisfaction to any one securing them as premiums. We have not space for a particular description. The *Eagle Plow* is well-known. The working of the *Cylinder Plow*, and other items concern us, are described on page 136 of Volume XX, (May 1861).

V—W—Hay and Straw Cutters—Steel-toothed Cultivators.—These implements are of first importance to all farmers, some of whom may find it most convenient to secure them through our premium list. We send the best implements we know of at the prices named.

The Markets.

AMERICAN AGRICULTURIST OFFICE.
New-York, Saturday Morning, Oct. 17, 1863.

TRANSACTIONS AT THE NEW-YORK MARKETS.					
RECEIPTS.	Flour.	Wheat.	Corn.	Rye.	Barley.
25 days this m'th	354,000	1,839,000	2,361,000	25,000	44,000
25 days last m'th	335,000	1,734,000	2,019,000	48,250	62,000
25 days last month	397,000	2,675,000	2,513,000	64,500	7,000
SALES.	Flour.	Wheat.	Corn.	Rye.	Barley.
25 days this month	553,000	3,395,000	4,493,000	30,800	361,000
25 days last month	397,000	2,675,000	2,513,000	64,500	7,000
25 days last month	397,000	2,675,000	2,513,000	64,500	7,000
25 days last month	397,000	2,675,000	2,513,000	64,500	7,000
25 days last month	397,000	2,675,000	2,513,000	64,500	7,000
25 days last month	397,000	2,675,000	2,513,000	64,500	7,000
25 days last month	397,000	2,675,000	2,513,000	64,500	7,000
25 days last month	397,000	2,675,000	2,513,000	64,500	7,000
25 days last month	397,000	2,675,000	2,513,000	64,500	7,000

2. Comparison with same time last year.

RECEIPTS. Flour, Wheat, Corn, Rye, Barley, Oats.

25 days 1863. 354,000 1,839,000 2,361,000 25,000 44,000 612,000

25 days 1862. 438,000 5,074,000 4,493,000 95,000 132,500 747,000

SALES. Flour, Wheat, Corn, Rye, Barley.

25 days 1863. 553,000 3,395,000 4,493,000 30,800 361,000

25 days 1862. 541,000 6,514,000 3,687,000 101,101 94,500

3. Exports from New-York, Jan. 1, to Oct. 15.

Flour. Wheat. Corn. Rye. Oats.

Bbls. Bush. Bush. Bush. Bush.

1863. 2,076,765 12,982,582 7,414,704 416,249 117,509

1862. 2,446,328 19,091,373 9,228,402 1,016,018 133,631

4. The aggregate quantity of Breadstuffs left at tide

water, at Albany, from opening of navigation to the 7th

October inclusive, during 1862 and 1863, was as follows:

Flour, bbls. Wheat, bus. Corn, bus. Barley, bus.

1862. 979,390 2,322,300 15,965,100 292,900

1863. 894,900 13,017,900 18,363,500 686,700

Dec. 84,300 Dec. 9,504,400 Inc. 2,970,400 Inc. 183,800

CURRENT WHOLESALE PRICES.

	Sept. 17.	October 17.
Flour—Super to Extra State	\$4.00 @ 5.45	\$3.40 @ 6.50
Superfine Western	4.00 @ 4.45	5.40 @ 5.75
Extra Western	4.40 @ 5.50	6.10 @ 9.75
Extra Genesee	5.50 @ 6.25	6.00 @ 8.50
Super to Extra Southern	5.10 @ 8.50	6.40 @ 9.75
RYE FLOUR	3.50 @ 5.30	5.60 @ 6.10
CORN MEAL	4.00 @ 4.50	4.75 @ 5.30
WHEAT—All kinds of White	1.28 @ 1.50	1.45 @ 1.75
All kinds of Red.	1.00 @ 1.25	1.30 @ 1.40
CORN—Yellow.	77 @ 79	1.00 @ 1.02
Mixed.	76 @ 77	96 1/2 @ 98
OATS—Western.	65 @ 73	80 @ 82
State	67 @ 73	81 @ 83
RYE	80 @ 90	1.15 @ 1.25
BARLEY	1.00 @ 1.25	1.30 @ 1.50
BEANS—per bushel	1.50 @ 3.00	
COTTON—Middlelings, per lb.	16 @ 68	69 @ 92
Hops, crop of 1863, per lb.	16 @ 23	22 @ 28
FEATHERS, Live Geese, p. lb.	48 @ 50	50 @ 52 1/2
SEED—Clover, per bushel	2.40 @ 2.75	2.50 @ 2.75
Timothy, per bushel	2.40 @ 2.75	2.50 @ 2.75
FLAX, per bushel	2.25 @ 2.55	3.00 @ 3.25
SUGAR—Brown, per lb.	9 1/2 @ 13 1/2	9 1/2 @ 14 1/2
MOLASSES, New-Orleans, p. gal.	37 1/2 @ 53	40 @ 60
COFFEE, Rio, per lb.	28 @ 31	31 @ 34
TOBACCO—Kentucky, &c, p. lb.	10 @ 25	10 @ 25
Seed Leaf, per lb.	13 @ 42	12 @ 45
WOOL—Domestic fleece, p. lb.	60 @ 74	70 @ 80
Domestic, pulled, per lb.	60 @ 70	65 @ 80
Wool, California, unwashed.	23 @ 50	28 @ 35
TALLOW, per lb.	10 1/2 @ 10 1/2	12 1/2 @ 12 1/2
OIL CAKE, per ton	38.00 @ 44.00	44.50 @ 52.50
PORK—Mess, per bbl	13 @ 13 1/2	14.50 @ 16.50
Prime, per bbl	10.50 @ 10.75	11.75 @ 12.25
BEEF—Plain mess, per bbl	10.50 @ 10.75	10.50 @ 11.50
LARD, in bulk, per lb.	10 @ 10 1/2	11 1/2 @ 12
BUTTER—Western, per lb.	15 @ 19	19 @ 23
State, per lb.	16 @ 23	23 @ 28
CHEESE.	9 @ 12 1/2	12 @ 16
BROOD CORD—per	23 @ 50	32 @ 40
EGGS—Fresh, per dozen	17 @ 21	21 @ 22
Eggs, Lined, per doz.	14 @ 16	17 @ 18
POULTRY—Fowls, per lb.	14 @ 16	10 @ 14
Ducks, per lb.	50 @ 75	10 @ 16
Geese, per lb.	15 @ 19	12 @ 18
TURKEYS, per lb.	15 @ 19	12 @ 18
POTATOES—Dykmans, p. bbl.	1.25 @ 1.57	1.25 @ 1.50
Mercedes, per bbl.	1.75 @ 2.28	2.00 @ 2.50
Buckeyes per bbl.	1.25 @ 1.57	1.25 @ 1.50
Peach Blow, per bbl.	1.40 @ 2.00	1.40 @ 2.00
NOVA SCOTIA, per bushel	4.00 @ 4.25	
Sweet Delaware per bbl.	3.50 @ 3.75	3.00 @ 3.50
Jersey Sweet per bbl	3.50 @ 3.75	3.00 @ 3.50
TURKISH—Itala baga, per bbl	3.50 @ 3.75	1.25 @ 1.50
ONIONS, Red & Yellow p. bbl.	10 @ 12	10 @ 12
CABBAGES, per 100	10 @ 12	4.00 @ 8.00
DRIED APPLES, per lb.	4 @ 7	4 @ 7
DRIED PEACHES, per lb.	14 @ 16	15 @ 17
DRIED RASPBERRIES, per lb.	2.50 @ 3.00	3.00 @ 5.00
APPLES, choice, per bbl.	75 @ 1.50	1.50 @ 2.00
APPLES, common, per bbl.	10 @ 15	10 @ 16
PEARS, choice, per bbl.	10 @ 15	10 @ 16
PEARS, common, per bbl.	3.00 @ 5.00	3.00 @ 6.00
PUMPKINS, Cheese, per 100	7.00 @ 10.00	8.00 @ 10.00
TOMATOES, per bushel	75 @ 81	50 @ 62
SQUASHES, Marrow, per bbl.	2.00 @ 2.50	2.25 @ 2.50
Hubbard, per bbl		2.50
CRANBERRIES, per bbl		8.00 @ 10.00
GRAPES, Isabella, per lb.		6 @ 10
GRAPES, Catawba, per lb.		10 @ 15
QUINCE, per 100		2.00 @ 3.00
PIGEONS, Wild, per doz		75 @ 1.00
PRAIRIE CHICKENS, per pair.		50 @ 62
QUAIL, per doz.		75 @ 1.25
PARTIDGES, per pair.		75 @ 80

The foregoing tables present a very carefully prepared comparison of the receipts and sales of Breadstuffs here, during the past and preceding months. The business of the past month has been quite heavy. In the line of reported sales, but as these are largely on speculation, the reduction of the available supplies is not very serious. The principal speculative purchases have been made on Western account, especially of Wheat and Corn. Western dealers have been endeavoring to get complete control of the market, but have been only partially successful, and they are now becoming apprehensive of a reaction that may prove disastrous to many of them. Inflation of prices by any illegitimate means is always of very temporary duration, and is ever sure of being followed by extreme depression. As will be seen on com-

paring the annexed list of prices, this day and a month ago, every article in the produce line is much dearer today. The rise has resulted less from legitimate causes than from the action of speculators. It has checked the demand from regular buyers, both for home use and for shipment. Stocks, instead of diminishing, have been accumulating, and at the close most holders appear to be eager to realize. A serious falling off in the prices is momentarily expected, though the rapid rise in, and prevailing high quotations for gold and foreign exchange, serve for the time being as a prop to the market. Cotton and wool have been in brisk demand, and have rapidly advanced, the market closing very firmly with a lively inquiry, especially for all kinds of Wool wanted by manufacturers. Tobacco has been more sought after and has been tending upward. Hay, Hops, and Seeds are dearer, with more doing. In most other agricultural products, transactions have been fair. The Price table shows present prices, and changes since our last quotations.

N. Y. Live Stock Markets.—The Cattle markets have been very largely supplied during the past month, the receipts averaging 6,238 per week, while the weekly average for all of 1862, was only 4532. For the week ending Sept. 22, 5,775 head were received and sold at last month's prices. For the week ending Sept. 29th, the supply was the largest ever received, amounting to 7,054 head. They were all disposed of, some of them to graziers, at an average decline of 1/2 c. per lb. For the week ending Oct. 6th, 6,581 cattle were received, and a further decline of 1/2 c. was the result, with 200 left unsold. At the last general market, Oct. 13th, the weekly supply was 5,647, and all were sold at 1/2 c. advance, a few of the best at 10 1/2 c. per lb. for the estimated dressed weight; good steers, 10c.; ordinary cattle, 8c.; and the poorer sorts, of which there was a large number, at 6c. to 7c. The average of all sales was about 8 1/2 c.

Milk Cows.—The receipts have averaged 112 per week, and they are now selling rather better than last month, a few fancy ones as high as \$70 each, but most at \$40 to \$50, which is the price of good milkers.

Veal Calves.—Average receipts, 775 per week. They are now selling readily at 7c. to 7 1/2 c. per lb. live weight, for fat calves, and 6c. for fair veals.

Sheep and Lambs.—The receipts have averaged 15,198 per week. There has been considerable inquiry for store sheep to winter over, and butchers have bought freely, paying pretty uniformly, 5 1/2 c. to 5 3/4 c. per lb., live weight, for fat sheep, and about 7c. for lambs. In lots, as they arrive from the West, sheep and lambs average \$4.25 to \$4.50 per head. The advance in wool enhances the value of sheep, and farmers are very generally increasing their flocks.

Live Hogs.—Receipts increase as the weather grows cooler. Weekly average for the past month, 20,700, or double the number for the previous month. Prices are unchanged, ruling at 5 1/2 c. to 5 3/4 c. per lb., live weight, for fair to prime corn-fed hogs; and 4c. to 4 1/2 c. for poor mast and fat still-fed hogs. Market brisk.

The Weather.—For a month past has been mild and pleasant for the season, with comparatively little rain, and but one or two light frosts, hardly enough to injure vegetation in this vicinity. Timely rains after our last report, revived the drying pastures somewhat, and helped out the buckwheat crop, and was of material help to growing turnips. It has, however, been much too dry for strawberry plants, and few runners have been made without artificial watering. — Our DAILY NOTES, condensed, read: — September 18 and 19, rain—20, showery—21 to 24, clear, cool, with the first frost here on the morning of the 23d—25, light rain—26 to 30, clear and fine.—October 1, clear and fine—2, cloudy, rain at night—3, 4, cloudy—5, to 7, clear, cool, frost morning of 8th—8, cloudy A. M., light rain P. M.—9, clear, fine—10, cloudy—11 to 15, clear, fine, rather dry—16, rain.

Rain Fall for September. 1.05 inches, making a very dry month. The barometer has ranged from 29.35 to 30.40, making a variation of nearly 1 inch.

Thermometer at 6 A. M., New-York.

(Observations carefully made upon a standard Thermometer (Fahrenheit).—r indicates rain—s, snow.)

SEPTEMBER.									
1.....60	7.....67	13.....60	19.....55	25.....54	2.....56	8.....63	14.....62	20.....51	26.....47
3.....57	9.....67	15.....62	21.....48	27.....44	4.....59	10.....56	16.....64	22.....50	28.....49
5.....56	11.....53	17.....70	23.....44	29.....50	6.....60	12.....61	18.....72	24.....47	30.....50

The coldest Sept. at 6 A. M., for 17 years. Average, 57°

OCTOBER.									
1.....54	4.....54	7.....46	10.....52	13.....42	2.....56	5.....52	8.....58	11.....48	14.....46
3.....62	6.....47	9.....48	12.....43	15.....53					

To Sunday School Teachers and Others.

The Book of "Lessons for every Sunday in the Year," can be obtained at the American Agriculturist Office in large or small quantities, at the uniform price of 10 cents per copy. If to go by mail, the postage to be pre-paid, is 3 cents each copy in packages of ten or more. The postage being rated by the 4 ounces, under the new law, the price for less than ten pre-paid by mail is:

1 copy, 14 cents.	4 copies, 52 cents.	7 copies, 90 cents.
2 copies, 28 cents.	5 copies, 66 cents.	8 copies, 104 cents.
3 copies, 42 cents.	6 copies, 80 cents.	9 copies, 118 cents.

THE SECOND SERIES of the above book will be published early in November. It will be of the same size and price as the first Series, and is a most valuable book.

Business Notices.

Eighty Cents per Line of space.

BEST AND CHEAPEST.—"Doty's New-York Clothes-Washer" is warranted to clean the bulk of eight shirts in five minutes, and not injure the finest fabric. See advertisement.

PREPARE FOR THE HOLIDAYS!

Booksellers, Fancy Goods Dealers, and the Public, will please remember that there is no other Gift which compares with the CRAIG MICROSCOPE and MOUNTED OBJECTS, being an endless source of amusement and instruction. Over 200 dozen Microscopes and 700 dozen Objects have been sold within a year by the Boston Agent alone. This Microscope, in brass, is mailed, postage paid, for \$2 25; or with six beautiful mounted objects for \$3; or with 21 objects for \$5. In hand rubber, for 50 cents, in addition to the above price. A liberal discount to the trade. Address,

HENRY CRAIG, 335 Broadway, N. Y.

Lands-To All Wanting Farms.

Large and thriving settlement of Vineland, mild climate, 20 miles south of Philadelphia, by railroad; rich soil; fine crops; twenty-acre tracts, at from \$15 to \$20 per acre; payable within four years. Good business openings; good society. Hundreds are settling and making improvements. Apply to CHAS. K. LANDIS, Postmaster, Vineland, Cumberland County, N. J. Letters answered. Papers containing full information sent free.

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Fifty cents per line of space for each insertion.
One whole column (14 lines), or more, \$50 per column.
2¢ Business Notices, Eighty cents per line of space.

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OF

VALUABLE HORSES.

The most valuable collection of Trotting Stock ever offered to breeders, will be sold at PUBLIC AUCTION on Thursday, Nov. 19th, 1863, at the farm of S. R. Bowne, Flushing, L. I. (Flushing is distant 8 miles from New-York City, conveniently reached by Railroad, from James Slip and 34th St. Ferries, ten times a day.)

The collection will number about fifty, mostly colts, among which are a large number of **Toronto Chiefs**, ages varying from foals up to four year olds. Also all the brood mares in foal by **Toronto Chief**.

Among the brood mares offered will be the great trotting mare **SONTAG**. This mare is a grey, 16 hands high, of a pure Messenger stock, and among her feats upon the turf, she beat **Flora Temple** in a race, making the fastest time on record with wagon and driver weighing 300 pounds. **Sontag** was purchased for breeding at a cost of \$1,700, and has never failed to produce a colt every year. Her first two colts were sold to breeders for \$4,500. She is now in foal by **Toronto Chief**. Three of her colts by **Toronto Chief** will also be offered, two **Fillies**, and one fine bay **Stallion**, 16 hands high, with promise of great speed. This last is without doubt the most valuable stock horse in the country; will be four years old November 15th, and has never been bred.

Toronto Chief will also be sold. He is a very dark bay, no white, sixteen hands high, of great power, weighs upwards of 1200 pounds, and is nearly thoroughbred, being a cross of the noted Royal George Stallion and a blood mare. His present owner purchased him solely for breeding; he has never appeared in public except as shown at the county fair on the Fashion Track, in ordinary condition, yet he there, without training, showed the extraordinary time of 1:12 to the half mile. This horse is entirely sound, and an offer at private sale of \$1000 has been refused for him.

The famous untrained mare known as the **Colt of Eureka** is a large bay, weighing about 1,100 pounds, height 15.3. Before she came from the hands of a farmer, she trotted upon a rough track, a mile in 2:30, since which time she has not changed hands, nor been shown in public, but has gained steadily, and her present owner considers her second in value to none in the United States.

The sale will be positive and without reservation.

P. S.—Also a fine **SHORT HORN BULL**, bred by Samuel Thorne, Esq. of Dutchess Co. N. Y.—got by the second Duke of Thorndale out of **Fleur de Lis**—a roan three years old last Spring, very large. For a full history of this bull see **American Herd Book**.

Catalogues of the above stock furnished on application to JAS. M. MILLER, 28 Pine St., New-York.

WANTED—A SITUATION AS FARMER, OR to assist a gentleman in farming, by an Englishman, capable of taking the charge of a large stock farm, having experience in buying and marketing stock—knowledge of crops, steam machinery, Dairy Farm accounts, etc. Address "S. S." care of J. MACKAY, 221 Pearl St., New-York City.

[CIRCULAR.]

IMPORTANT INFORMATION.

U. S. 5-20's

THE SECRETARY OF THE TREASURY has decided to continue for a short time the sale of this popular Loan at Par, or until ten days notice is given to the contrary.

The whole amount of the Loan authorized is Five Hundred Millions of Dollars. Nearly Three Hundred Millions have been already subscribed for and paid into the Treasury, mostly within the last six months. The balance, (Two Hundred Millions,) is hardly sufficient to furnish the basis for circulating notes for the National Banking Associations now rapidly organizing in all parts of the country.

The sales frequently reach Two Millions in a day. It is confidently expected that the sales will still further increase, especially as a large foreign demand (mostly from Germany,) has lately sprung up, which is likely to absorb one or two Millions weekly. A very short period only must elapse before this Loan is wholly absorbed, and as it is well known that the Secretary of the Treasury has ample and unfailing resources in the Duties on Imports and Internal Revenues and in the issue of the Interest bearing Legal Tender Treasury Notes; it is almost a certainty that he will not find it necessary, for a long time to come, to seek a market for any other long or permanent Loans, the Interest and Principal of which are payable in GOLD.

Prudence and self-interest must force the minds of those contemplating the formation of National Banking Associations, as well as the minds of all who have idle money on their hands, to the prompt conclusion, that they should lose no time in subscribing for this most popular Loan. It will soon be beyond their reach, and advance to a handsome premium, as was the result with the "Seven Thirty" Loan when it was all sold and could no longer be subscribed for at par.

It is a Six per cent. Loan, the Interest and Principal Payable in Gold, thus yielding Eight to Nine per cent. per annum at the present rate of premium, on coin.

The Government requires all duties on imports to be paid in Coin; these duties have for a long time past amounted to over a Quarter of a Million of Dollars, daily, a sum nearly three times greater than that required in the payment of the interest on all the 5-20's and other permanent Loans. So that it is hoped that the surplus of Coin in the Treasury, at no distant day, will enable the United States to resume specie payments upon all liabilities.

The Loan is called 5-20 from the fact that whilst the Bonds may run for 20 years, yet the Government has the right to pay them off in Gold, at par, at any time after 5 years.

The Interest is paid half-yearly viz: on the first days of November and May.

Subscribers can have Coupon Bonds which are payable to bearer, and are of \$50, \$100, \$500, \$1000; or Registered Bonds of same denominations, and in addition, \$5,000, and \$10,000. For Banking purposes and for Investments of Trust monies the Registered Bonds are preferable.

These 5-20's can not be taxed by states, cities, towns, or counties, and the Government tax on them is only one-and-a-half per cent., on the amount of income, when the income of the holder exceeds Six Hundred dollars per annum; all other Investments, such as income from Mortgages, Rail Road Stock and Bonds, etc., must pay from three to five per cent. tax, on the income.

Banks and Bankers throughout the Country will continue to dispose of the Bonds; and all orders by mail, or otherwise will be promptly attended to.

The Treasury Department having perfected arrangements for the prompt delivery of Bonds; Subscribers will be enabled to receive them at the time of Subscription, or within four days thereafter. This arrangement will be gratifying to parties who want the Bonds promptly on payment of the money.

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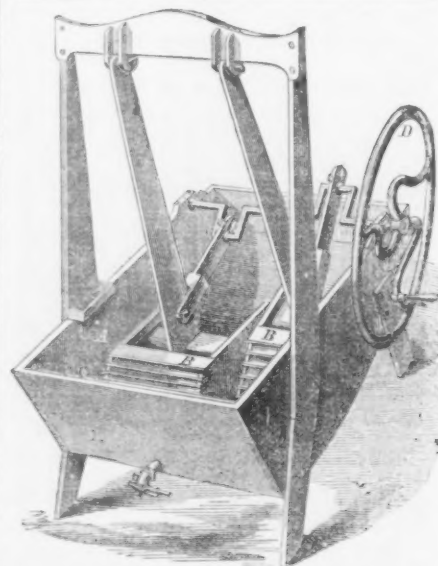
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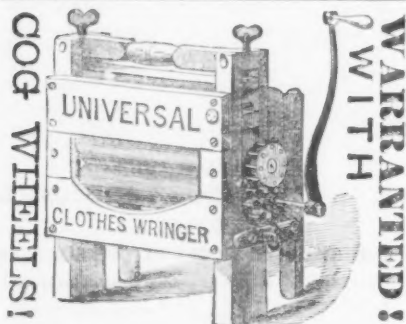
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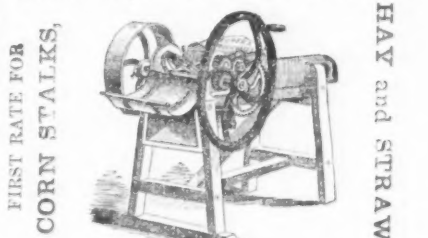
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"B." writes: "I confess I get many times my dollar's worth from the *Agriculturist*, and like it almost first-rate now; but I would like it better if the publisher would not say so much about premiums, business matters, getting subscribers, etc., on the last page."

That is frank and friendly, and we like it. But, friend "B.," if you now get your money's worth many times, why object to our using a page or two for business items? Please consider that it is only by pushing along the circulation, that we are able to devote so much expense to the preparation of the reading matter, to collecting information, to procuring engravings, etc. The larger the circulation, the more can we return to every reader for his money. We can supply a much better paper for a dollar a year, than we did eight or ten years ago, though we then gave the best one we could for the money.

Again, is not every farmer who reads any good paper devoted to his occupation, likely to think more about his work, to lay out better plans, to learn what pays best, and to labor more systematically and profitably, than he who plods along in the old way, getting no hints or suggestions from others engaged in like pursuits? Would it not be better if every man, woman, and child, read some such paper, than if all were living secluded from the outside world, like the Japanese, without much access to what others are doing and thinking—just as about four millions of farmers are now doing in this country? We think so, and aside from any personal interest in the matter, we believe we are doing a good work by pushing this journal into every family possible. With this view of the case we must keep on—urging people to read, offering special inducements to them in a variety of ways, asking our readers to solicit the attention of others, offering premiums to those who do so, and thus keep up an interest. When every body is brought to read, to talk, to think about improved modes of tillage, better and more profitable stock and implements, fruit growing, gardening, beautiful flowers, the best methods of cooking, and doing other household work, etc., etc., what a change will be produced! How much better off, and how much happier will the great agricultural class be. Give us your help, friend. Stir up all your neighbors, and induce them to get a paper that will pay them "many times its cost," as you say it does you. If they don't know what a feast there is for them, go out and "compel them to come in." And we, too, must keep doing. If our own books could hold no more names, we would even work for some other good journal—any way to get all the people to reading and thinking. An ox has very good muscles for mere working purposes; it is the MIND that makes the MAN.

Condition of the Strawberry Plants.

As the Great Strawberry Plant was purchased, and is being cultivated and multiplied expressly for the subscribers to this journal, they will doubtless be glad to hear of its welfare occasionally. We are happy to report, that from the few plants first obtained (that is, all there were in existence) we have so far succeeded in getting plants enough to set out an acre. No expense or labor is being spared to multiply them as rapidly as possible. They are looking well, and we have no reason to regret the enterprise. The extraordinary dry season is very greatly diminishing the rapidity of the multiplication. Several thousand buckets of water have been applied, but the soil, ordinarily so wet as to be underdrained, is almost "as dry as an ash heap." The only effect, however, will be to delay the distribution a month or two longer than would otherwise be the case. We have not the slightest doubt of being able to distribute next season at least 40,000 to 50,000 plants—good strong ones, too, and not little puny things, such as have been sent out from some drouth-parched localities this year.

To answer numerous letters of inquiry, we say, that no one who has applied thus far, or who shall apply for some weeks to come, will fail to be supplied next season. We hope and expect to favor every subscriber for next year with at least one good plant, though to prevent any disappointment or misunderstanding, we promise only to send them as far as they go, sending to subscribers in the order of application—"first come, first served." As soon as any subscription is received for 1864, the name is also entered for the strawberry plant, if desired. The plants can go by mail safely, and this will be the best way generally, but those who expect them thus, should remember to forward the 5 cents in addition to the subscription, to meet the expense of postage and oil cloth. To prevent confusion or irregularity, let the application for the plants always come with the subscription for volume 23. We repeat, that the plants, as far as they go, will be presented to all subscribers for 1864, who apply for them—old and new subscribers, whether coming singly or in clubs, on premium lists, from agricultural societies, or otherwise.

Thirteen for Twelve.

All New Subscribers for 1864, received this month (November), will be supplied with the December number without extra charge. Those arriving during the first week, will also receive the Nov. number, or 14 months.

N. B.—The above offers extend to all new subscribers whether they are received singly, or in clubs, or on premium lists, or from Agricultural Societies, or otherwise.

N. B.—Since many old subscribers are renewing in advance, it is important that new subscribers' names be marked as "NEW" when sent in, if the extra numbers are desired, for we shall not send these extra numbers unless they are specially and definitely asked for.

Good Pay.

Again we call special attention to the list of good articles on page 346, offered as pay to those who gather up clubs of subscribers. The various articles offered are valuable, are generally wanted, and not difficult to obtain, if any one sets about it in good earnest. Many thousands of persons have secured one or more of these, with no outlay of money. The premiums are forwarded as soon as the names are received. The extra number offered above, makes it easy to secure lists of new names this month. Please read the terms and the descriptive notes.

Yes—Six Years for \$5.

Several subscribers, especially on the Pacific Coast, have from time to time asked if they could not just as well send on \$5 for five years, and thus save the trouble of remitting a small sum every year. This would be convenient where dollar bills are not common. We answer, yes, and even better than asked, those who prefer to do so, can, for \$5, receive a receipt for six years.

Specimens or Extra Numbers are costly, and each copy requires two cents postage paid in advance. So they cannot be scattered around very freely. When needed for canvassing, the judgment of the applicant will in each case decide whether both the paper and postage should be supplied by the Publisher. Unless used solely for our benefit, postage at least should be provided.

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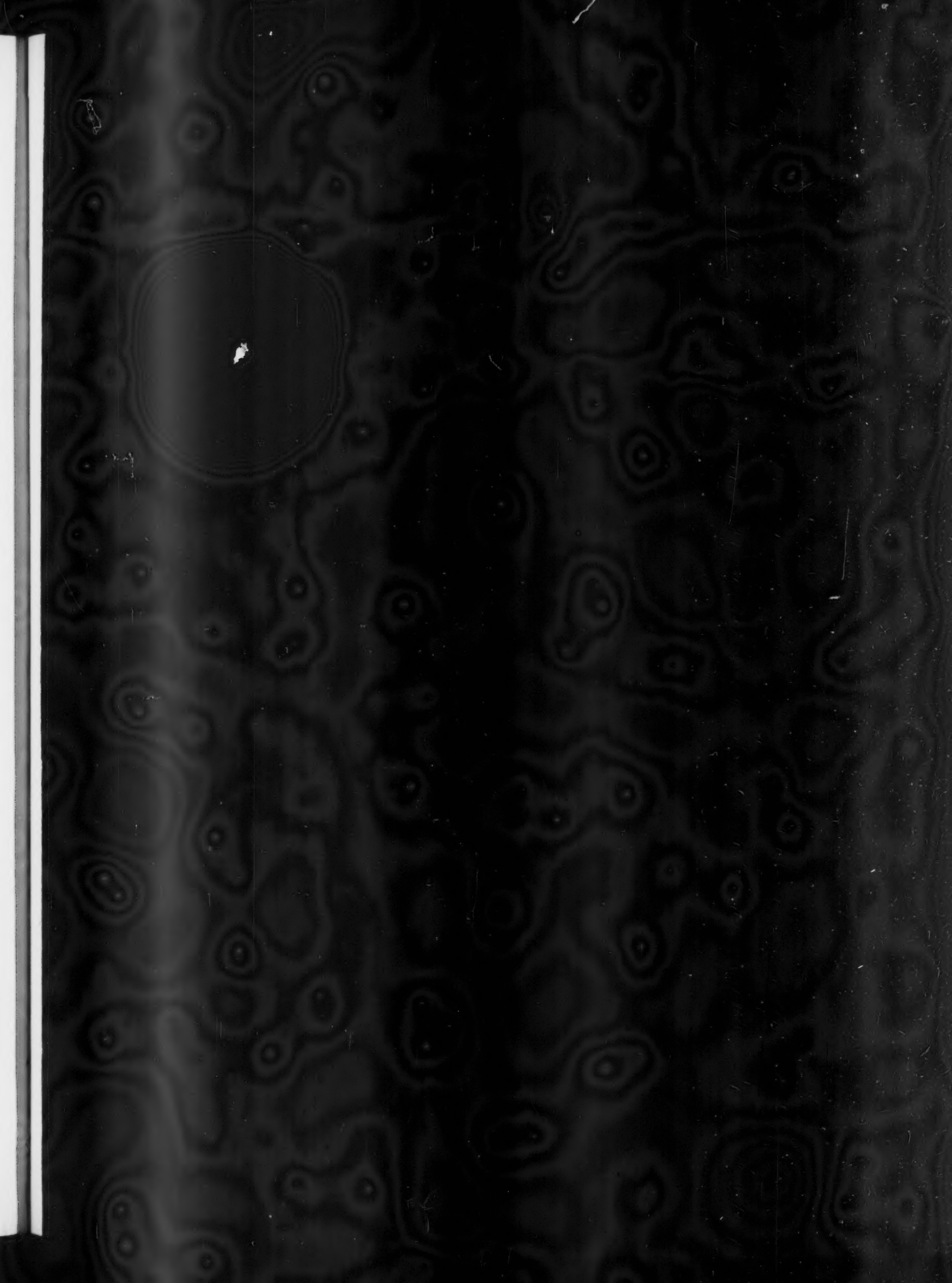
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